

Calendar of Events				
Apr 3	Wed	5:30 PM 7:30 PM	Dinner at Marie Callenders, 2460 Mendocino Ave, Santa Rosa SCRA Meeting, Agilent Technologies, 1400 Fountain Grove Prkwy, Santa Rosa	
Apr 5	Fri	7:30 PM	Marin ARC Meeting, Alto Clubhouse, 27 Shell Road, Mill Valley	
Apr 6	Sat	10:00 AM	Red Oak Victory ARC Meeting, Point Richmond	
Apr 7	Sun		MS Walk-A-Thon (Public Service Event) Contact: John KD2L (707) 575-9176	
Apr 10	Wed	6:30 PM	SCRA Board of Directors Meeting, 3450 Airway Dr., Santa Rosa	
Apr 17	Wed	7:00 PM 7:30 PM	REDXA Meeting, Carrow's, Petaluma Valley of the Moon ARC Meeting, McDougall Hall, Sonoma Developmental Center, Glen Ellen.	
Apr 19	Fri	8:00 PM	San Francisco ARC; VA Medical Center, 42 <sup>nd</sup> Ave & Clement, San Francisco	
Apr 20	Sat	9:00 AM	VE Test Session - SCRA Agilent, 1400 Fountaingrove Prkwy, Santa Rosa Contact: John KD2L (707) 575-9176	
Apr 27	Sat	8:00 AM	VOMARC Hamfest, Sonoma Vets Bldg., 126 First St. West, Sonoma; Swap Meet, Breakfast, T-Hunt, VE session. Talk-in on 145.35- (PL88.5)	
Apr 29	Mon	7:00 PM	Willits ARS Meeting, Brooktrails Firehouse, Willits	

Sonoma County Radio Amateurs, Inc.  
P. O. Box 116  
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WB6FRZ



Club Station  
**W6LFJ**

# Short Skip

newsletter of the  
**Sonoma County Radio Amateurs, Inc.**  
P. O. Box 116, Santa Rosa, CA 95402-0116  
(707) 579-9608  
<http://www.sonomacountyradioamateurs.com>  
Repeaters  
**146.73- • 224.48- • 441.375+**



Repeater Station  
**W6SON**

Volume 27 Number 4

April 2002

# QTC

by  
Bill Hillendahl KH6GJV  
SCRA President



The next few months are going to be filled with Amateur Radio activities. Get your calendar out and start marking off some dates.

April starts off SCRA's public service event season. The kickoff event is the **MS Walk-A-Thon** on **Sunday, April 7<sup>th</sup>**. Our public service events keep our radio skills sharp so that we can be efficient when there is a real emergency.

On **Saturday, April 27<sup>th</sup>**, the **Valley of the Moon Amateur Radio Club** host's its annual swap meet and breakfast in Sonoma. This is an activity that you won't want to miss. There are always some interesting equipment and parts that you can add to your collection. And, the great breakfast that the VOMARC members serve up is worth the early morning drive through the valley.

**ALCATRAZ!** On the weekend of **May 18-19<sup>th</sup>**, SCRA is joining the **Empire Amateur Radio Society** for an overnight on the Rock. The last time we could do that was five years ago, and, with the deteriorating condition of the buildings, there is some doubt that we will be able to go again. Be one of the lucky 35 to go.

**June** brings us **Field Day** on the weekend of the **22<sup>nd</sup> & 23<sup>rd</sup>**, Amateur Radio's premier contest and social gathering. It's a big event to put on, but well worth the effort to test our emergency operations skills, and, to let members and guests operate HF who may not get to on a regular basis. It's a good excuse for a camp out.

Also in **June** on the following weekend of the **28<sup>th</sup> - 30<sup>th</sup>** is the **ARRL San Francisco Section Convention** in Ferndale. Hosted by Humboldt County's clubs, the event was quite well attended last year on Field Day weekend. Now on a separate weekend, it may be standing room only! Clear it with the homefront for a two-weekend Ham month.

Let the festivities begin!

## A Mini Primer on SWR Measurements

By John Breckenridge WB6FRZ  
**Part 2**

Now that I have your attention, let's consider some situations of good high SWR and bad low SWR.

**Examples of Good High SWR and Bad Low SWR**

Suzie Hamm has been a ham for years. Her old antenna system, fed with 23 year-old coax cable, has NEVER given her any problems! In fact, her SWR meter always shows a very low SWR. "If it ain't broken, don't fix it," I've heard Suzie say. The problem is that Suzie's coax has become so lossy over time that her antenna could be disconnected and she would STILL get an SWR reading of 1.5 to 1! But how could this be? Remember, the SWR meter is stupid, it can't interpret what is CAUSING it to read the way it does. The SWR is low because the lossy coax cable absorbs the forward RF energy going to the antenna, and also absorbs any reflected power (if there is any left to be reflected) from the antenna going back toward the transmitter. OF COURSE the SWR is low! The solution to Suzie's situation would be for her to periodically measure the power at each end of her coax cable with a dummy load attached. Without changing the transmitter power, the difference in the readings is the amount of power lost through the coax. Low SWR does not guarantee a better signal.

(continued on page 4)

## RED STICKER?

Is there a RED STICKER next to your name on the mailing label? If so, then that means that we have not received your dues for the 2002-2003 fiscal year. This IS your LAST issue of *Shortskip*! We will miss YOU! The dues are **\$20 per year for individual members** and **\$30 per year for a Family membership**. **Students under 18 years of age are half price (\$10)**. Please take a couple of minutes and complete the membership information on the inner last page and mail it and your dues. Better still, bring them with you to the April meeting. If you have been stickered in error, please contact the club Secretary, Jeff Basham W2JAB. *Thanks!*

## 2002 Club Officials

President	Bill Hillendahl	KH6GJV	707 544-4944
Vice President	Brian Torr	N6IY	707 575-5871
Secretary	Jeff Basham	W2JAB	707 542-3860
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Public Service Chairman	John Mullan	KD2L	707 575-9176
Repeater Chairman	Greg Gordon	AC6VJ	707 523-7077

## Short Skip &amp; Web Staff

Editor	Bill Hillendahl	KH6GJV	707 544-4944
Hank's Swap Shop	Jeff Basham	W2JAB	707 542-3860
Web Master	Jeff Basham	W2JAB	707 542-3860

## Contacts

Antenna Ordinance/Legal	Lee Dibble	KE6EAQ	707 544-1675
Public Relations	Bill McCall	W2WDM	707 538-2844
Raffles	Mark Lockwood	KK7CU	707 332-4836
Refreshments	Ted DeCroff	KB6PTA	707 542-4008
TV/RF Interference	Alan Bloom	N1AL	707 538-7115
Volunteer Exam Liaison	John Mullan	KD2L	707 575-9176

SCRA Hotline 707 579-9608

SCRA E-Mail [scra@sonomacountyradioamateurs.com](mailto:scra@sonomacountyradioamateurs.com)SCRA Web Site <http://www.sonomacountyradioamateurs.com>

## Tuesday Night Net

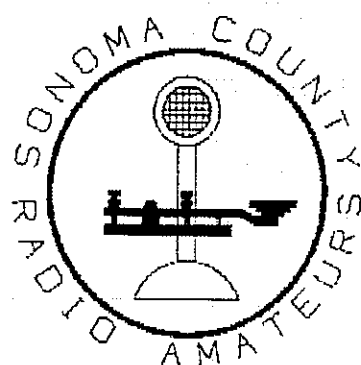
Check in to the SCRA net each Tuesday evening on the 146.73- (PL 88.5) repeater at 7:00 PM. Announcements are made of upcoming SCRA and other amateur radio activities in the area and what is listed in Hank's Swap Shop. You will also hear the weekly *Amateur Radio Newsline* broadcast.

## Short Skip Advertising Rates

Business Cards	\$ 12
1 <sup>st</sup> Quarter Column	\$ 13
Each Addn'l Quarter Column	\$ 4
Full page (one side)	\$ 35
Pre-printed inserts (each)	\$ 35
Guaranteed circulation of 200 per month!	
For more information, contact the Editor.	

## HUNGRY BEFORE THE MEETING?

JOIN US FOR DINNER! We meet at Marie Callenders restaurant, 2460 Mendocino Avenue (corner of Mendocino & Chanate), Santa Rosa. People start showing up at 5:30 PM. No RSVP is required! See you there!



## NEXT MEETING

April 3rd

7:30 PM

Program:

Operating in NY on 9/11

by Bart Lee KV6LEE

&amp;

Home Brew

(See article)

## CLUB MEETINGS

The club normally meets the first Wednesday of each month at:

Agilent Technologies  
1400 Fountaingrove Parkway  
Santa Rosa, CA

The meeting starts at 7:30 PM

ALL ARE WELCOME!

Please join us at our next meeting. Membership in SCRA is open to anyone interested in Amateur Radio. A membership application is included in this newsletter.

Interested? For more information, contact any SCRA officer, director or member.

## Homebrew Night is Coming!

The program for our April meeting is the traditional Homebrew Night. This is the time to bring in a piece of your own handiwork. It doesn't have to be big and elaborate. In fact, some of the most interesting projects are those that have been cobbled together on the spur of the moment from stuff just laying around the house. And it doesn't have to be hardware, either. Perhaps you wrote a simple program to control your HF rig or log contacts or convert return loss into SWR. If you've hit upon a new technique of how to do something, such as winding a toroid, tell us about it. If it's too big to haul in (we don't expect you to dismantle that beautiful 50 foot tower you built from scratch), bring in pictures. Anything related to ham radio, and electronics in general, is fair game.

This is a great opportunity to share knowledge. You just might have hit upon a simple solution for another ham that's been puzzling over the same problem. So look around the shack for something you might want to share with the rest of the club!

Brian Torr, N6IY

## Public Service Events Calendar

John Mullan KD2L, SCRAPS Chairman

April 7 - MS Walk - a walk-a-thon benefitting the Northern California chapter of the National MS Society. A pretty low pressure event, with a net control, two rest stops and two or three sags. It is a good introductory event for people that have never worked a public service event. Start and finish is at Finley Park in West Santa Rosa. Rest stops at Dutch Flohr Park and Pioneer Park.

May 4 - Santa Rosa Cycling Club Wine Country Century - This is a major event, with in excess of 1000 riders on a variety of length bicycle rides. This is not meant to be a race, but rather a long distance ride. Ridden distances are 200 km, 100 miles, 100 km and 35 miles. Start/Finish is at the Luther Burbank Center. Rest Stops are scattered over Sonoma County including the Alexander Valley School, Wohler Bridge, Monte Rio, Occidental, Sebastopol and Lake Sonoma. Sag vehicles are also used. See <http://www.srcc.com/wcc/html> for more information.

About sag wagons for these events: given that a lot of the vehicles used for sag wagons are whatever the volunteer driver has available with a bike rack, sometimes there is not a lot of room for a radio operator as well as the driver and then bike riders and bikes. Because of this we are often seeing sags without radio operators. This is the choice of the event organizers. We wish we could get radios into each and every one of these sags. Several regular sag drivers have gotten their licenses to help out on these events. If you have the opportunity, talk up the hobby with the sag drivers without radio ops.

Sonoma County Radio Amateurs, Inc.

Please Print Clearly

Membership Application

New [ ] Renewal [ ]

Name \_\_\_\_\_ Call Sign \_\_\_\_\_ License Class \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_ Hm Phone \_\_\_\_\_ Wk Phone \_\_\_\_\_

City/State \_\_\_\_\_ Zip \_\_\_\_\_ E-Mail \_\_\_\_\_

ARRL Member? [ ] Yes [ ] No

Dues &amp; Fees: (SCRA dues year is from 3/1 to 2/28)

Payment Calculations:

Make checks payable to SCRA

Individual/Associate Member	\$ 20 (\$5.00/qtr)
Family Membership	\$ 30 (\$7.50/qtr)
Under 18 Membership	\$ 10 (\$2.50/qtr)
Badge	\$ 7

Dues - Full Year (3/1 to 2/28)	\$ _____
Dues -	
Prorated ____ Qtrs. X \$ ____ /qtr	\$ _____
Badge	\$ _____
Other - _____	\$ _____
Donation	\$ _____

## Badge Information

Call Sign \_\_\_\_\_  
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City \_\_\_\_\_

Total \$ \_\_\_\_\_

Mail to: SCRA, P. O. Box 116, Santa Rosa, CA 95402

- 2002 - Wine County Century, June 1, 2002 - American Lung Assoc Event, June 22, 2002 - Terrible Two, July 11, 2002 - Healdsburg Harvest Century., September 15, 2002 - Diabetes Society Ride, September 28-29, 2002 - Waves to Wine
- e. Repeater Committee - Greg Gordon AC6VJ
- a. Status of Repeaters - Greg advised that everything seemed to be working normally. He reported that he sold the Repco repeater on EBay for ~\$250.00. Greg said that the Scom controller is going to be put on Ebay soon.
- b. Status of FCC Complaint - Under review by FCC.
- c. Net Control Operators - 4/2 - VJ, 4/9 - ILY, 4/16 - CU, 4/23 - GJV, 4/30 - L or SUE
5. Unfinished Business
- a. Meeting Programs - Apr - Homebrew and Bart Lee on 9/11, May - ??  
Future program ideas - NWS Skywarn, Marconi Sites, CDF, N1AL on RFI
- b. Club Calendar - Issued. Rich KF6SZA notified the board that we will need to change locations for our July, 2002 Board meeting, as his meeting space will not be available.
6. New Business
- a. Appointments by BoD
1. License Trustees (W6LFJ) - Al Bloom has not yet been contacted. Item Deferred.
7. Announcements - There were no announcements.
8. Adjournment - The meeting was adjourned at 8:30 PM.

SWR (from page 4)

marriage and Joe's older nephew) is installing a tuned 40-meter dipole. His transceiver connects to an SWR meter, then to 75 feet of RG-58U coaxial cable to the center of the dipole. Harry has the following SWR readings:

Frequency	SWR
7.01 MHz	1.9
7.18 MHz	1.0
7.29 MHz	1.7

Harry has a good setup here. He has no tuner, but Harry adjusted his antenna for good low SWR at the frequency that allows operation over the entire band. The radio matches into the antenna system with no problem. The SWR increases toward the band edges, but with a simple dipole, it SHOULD! If it doesn't, suspect trouble.

So, Whom Can You Believe?

Last December marks my 27th. year as an amateur radio operator. That doesn't mean I know very much; all it means is that I've been licensed for awhile. There is a LOT of misinformation about antennas and antenna systems that continues to be handed down from ham generation to ham generation. You new hams can learn a lot from "old timers." But be mindful that myths have been around for a long time and some of us "old timers" never did get it right. It took me years to find out that reflected power in a low loss transmission line is not wasted, is not dissipated, does NOT come back down the line and burn out the final amplifier. I learned that in a low-loss system, most of that REFLECTED power IS transmitted by the antenna. It might have to jump back and forth a bit, but those reflected signals are radiated!

If you don't believe me, it's okay, I understand. With the disinformation I have heard over the years, I could hardly accept

some of these ideas myself. But we condition ourselves through repetition and constant bombardment of the wrong information until we accept it as "fact" without even considering its validity based on scientific principles.

Conclusions

An SWR meter can be a handy tool for the average amateur radio operator. But many of us have not learned enough about antennas, feed lines, and reflected signals to determine if a particular SWR reading is good or bad. And then when we REALLY determine that it's bad, we haven't learned how to correct the situation. The point is NOT "to have a low SWR reading." The point is "to have an efficient antenna system; one that radiates well." And many times it is also important to have a flexible system that covers more than one band.

Finally, I want to offer you a solid basis on which to build your antenna knowledge, as well as dispel some of the stuff you may have believed was true for years. I refer you to further study using the book "Reflections, Transmission Lines and Antennas," by M. Walter Maxwell, W2DU. Please, please get a copy of it, if you are at all interested in how RF acts in a mismatched transmission line. It's all in there. The book is published by the ARRL, it's \$20 plus change, and you won't be sorry. And no, I don't get a commission by recommending it.

Everything Walter says is based upon well-established facts of physics and electrical engineering. But much of it is readable enough so that even thick-skulled dolts like myself can understand. For you brainy ones, there is plenty in there to keep you interested.

Experiment, keep learning, and have fun. For me, that's part of what amateur radio is all about.

Acknowledgments

I wish to recognize the thoughtful review of this article by Al Bloom, N1AL, truly one of Sonoma County Radio Amateurs guiding lights. I also credit M. Walter Maxwell, W2DU, the author of "Reflections, Transmission Lines and Antennas," the book that inspired this article. Some sayings from Kurt N. Sterba were also used.

Best Regards,  
John Breckenridge WB6FRZ

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April Program  
Operating in New York on 9/11  
&  
Annual Home Brew Night

Join us on **Wednesday, April 3rd**, where we have a double-header for you. SCRA's annual **Home Brew Night** offers members an opportunity to show off their pet projects to the members. Don't miss this opportunity to pass on your knowledge and talent to the rest of the gang. For more information, check **Brian Torr's** article on page 9 in this newsletter.

Also joining us will be **Bart Lee KV6LEE** who will be talking about his experience helping out in New York for several days on and following September 11<sup>th</sup>. Bart will pass on his observations and suggestions on emergency operations. His program really makes you think about why we do all this training and practice through public service events, ARES and the like. Don't miss this vital and informative program.

If you missed the March meeting, you missed a great presentation by **Gregory Gordon AC6VJ**, ably assisted by **John Mullan KD2L**, on Slow Scan TV (SST). Gregory and John set up short range stations in the room and showed the process of passing image traffic on an HT and a laptop computer. Gregory also provided a simple schematic diagram with parts list for a simple interface to connect your radio to a computer which will enable the operator to receive SST and other computer based digital modes with a minimum of cost.

Are you a budding author? Write an article for *Short Skip* on a Ham radio-related subject, technical or non-technical. E-mail the article to kh6gjbv@arrl.net. We'd love to see YOU in print!

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Photographer

**Alcatraz**  
Starting April 1<sup>st</sup>, reservations will be accepted for the over-night at Alcatraz. The dates of the event are **May 18<sup>th</sup> and 19<sup>th</sup>**. The cost per person will be \$100 for adults, \$50 for kids 9 to 17. Children under 9 years of age are not permitted to stay overnight. The event is a fund-raiser for EARS and SCRA activities. A maximum of 35 persons can stay overnight. However, if you want to join us for the day, you can contact the boat service and get tickets for a day trip. Full payment must be received with your reservation. Reservations forms will be at EARS meetings and at the April SCRA meeting. Checks are to be made out to Bill Hillendahl (he advanced the park fee) and mailed to P. O. Box 4151, Santa Rosa, CA 95402. You can call Bill at 707 544-4944 or e-mail [kh6gjbv@arrl.net](mailto:kh6gjbv@arrl.net). Look for more information at the meetings, in *Shortskip*, EARS' *Propagator* and on the nets. It will be great. Stay tuned!

SCRA's Mobile Communications Unit  
The "Toaster"

If you have not had a chance to come by and help, make it a point to do so. The project is fun and you get to be on the ground floor of designing and building the club's mobile communications center. The "Toaster" will be able to be used at public service events, Field Day, ARES events, and, of course, true emergencies should the need arise. The vehicle will also be a good public relations device to keep Amateur Radio in the mind of the general public. **Work parties are held each Saturday from 10 AM until about Noon at Lee Dibble's home, 1290 Parsons Drive, Santa Rosa. Come and join the fun!**

Fresh-Tasting "Toaster" Fundraiser  
By John Breckenridge, WB6FRZ

The club needs your help in a tasty fund-raiser for the "Toaster!" As many of you know, the club has taken on the project of restoring a motor home (the "Toaster") and transforming it into an effective portable communications center. To raise funds for this task, we are asking YOU to help sell coupon books for tasty deals at Fresh Choice restaurants. The price is \$5 per book and contains \$85 worth of coupon savings at any Fresh Choice restaurant. Buy several to sell or as gifts, or get one for yourself and family. Either way you win, and the community is served by making it easier for your club to complete work on this worthy project. For details, contact John Breckenridge, WB6FRZ at (707)838-6398 or come to the next club meeting.

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SWR (continued from page 1)

Baluns are wonderfully magical devices; they make everything okay. In fact, some hams have been able to reduce the SWR of their dipole antennas by simply inserting a 1 to 1 balun at the antenna terminals. The SWR doesn't rise at the band edges like it did when the balun wasn't there! OOPS, a red light should go on here, but normally hams will just be pleasantly surprised at the quality of that balun and brag about it to their buddies. What they should be doing is throwing the balun in the trash and replacing it with one that works. Here's what is happening: The balun was made of a ferrite core that saturated when power was applied. The core material provided significant power loss, turning that precious RF into heat before it even got to the antenna! Low SWR does not guarantee a better signal.

Consider a ground-mounted HF quarter-wave vertical antenna system with 12 radials. Its input resistance is determined by adding its radiation resistance and ground loss resistance. Radiation resistance for this antenna is close to 32 ohms and ground loss resistance is on the order of 20 ohms. 32 plus 20 gets you 52 ohms, and your SWR meter shows a perfect match using 52-ohm coax. So that means an optimum vertical has 12 radials? Nope, because the power "radiated" by that 20 ohms of ground loss resistance is lost warming the worms in the ground! Add 25 more radials to the system and the SWR at resonance will rise because ground losses decrease. The SWR may now show 1.4 to 1, but the worms get colder because your vertical is a more efficient radiator! Low SWR does not guarantee a better signal.

Let's take the above example one step further. Let's say you don't like radials so you decide to install only four of them onto your vertical. Your radiation resistance is still about 32 ohms. But now your ground losses are also on the order of 32 ohms, giving you about 64 ohms for input impedance. That equates to an SWR of about 1.3 to 1 at resonance. The SWR is still "acceptable" to your rig, so you move off frequency and find a wonderful thing! The SWR seems quite "flat" across the band; it doesn't rise as you might expect - it's a miracle! You always suspected that you didn't need all those nasty radials, anyway. Nope, sorry. What has happened is that the ground losses are so high now that they hold the off-resonant SWR to a lower value than would be normal if you had a DECENT radial system. You are really making the worms uncomfortably warm now because HALF your power is HEATING THE GROUND. Low SWR does not guarantee a better signal.

Joe Hamm is testing a new Yagi beam antenna. It seems like no matter what Joe does to the antenna, the SWR is 3 to 1 or more. Joe tries changing the length of the coax because he read somewhere that doing that tunes the antenna. And guess what, the SWR drops to 1.2 to 1! Obviously Joe has confirmed that the length of the coax tunes the antenna, right? Wrong. Joe had a problem before, and still has a problem, although his SWR meter suggests that he fixed it. The problem is that the RF is squirting out of the end of the coax and flowing on the OUTSIDE of the coaxial braid. What this does besides allowing the coax to radiate and make for totally bogus SWR readings is seriously affect the front-to-back ratio of Joe's beam. The beam no longer shoots its energy properly in the desired direction. This is not good. To correct all of this, it is very important to have a well-engineered

balun just ahead of the beam's gamma matching network. If for some reason the balun is not taking care of the problem, then ferrite beads can be placed over the outside of the coax at the connection to the antenna to "choke off" any stray RF that wants to misbehave. Low SWR does not guarantee a better signal.

Fred Frequency has a multiband HF antenna system and feeds it with 100 feet of Belden 9913 coax cable. The other end of the coax is connected to a tuner, SWR bridge, and then to a transceiver. Fred operates 80 through 10 meters with this setup. Fred adjusts the tuner for an SWR reading that shows a good match to the rig. But wait, you say. For various bands, isn't there still a very high SWR (mismatch) between the output of the tuner and the system? Yes, but that DOESN'T MATTER. I will explain why. YES, its true that coaxial cable losses increase as the SWR increases. From the ARRL handbook, an SWR of 7 to 1 between the tuner and the line creates 1.3 dB of reflection loss in the line. The ham in contact with Fred will see a difference of a quarter of an S unit due to the TINY losses in Fred's cable from a 7 to 1 SWR. When was the last time you heard the signal strength difference of a quarter of an S unit? High SWR does not mean a worse signal.

Now let's look at situations showing what most of us are used to seeing, good low SWR and bad High SWR.

**Examples of Good Low SWR and Bad High SWR**

Juan Deebee has a 20-meter station with transceiver, SWR meter, and coax cable to a beam at 145 feet (oh, that I were Juan). Anyway, when installed, his beam showed these SWR readings:

Frequency	SWR
14.01 MHz	2.3
14.15 MHz	1.2
14.34 MHz	2.1

This is a reasonable characteristic and is an indication that things are as they should be. But two years after it was installed, the SWR at 14.15 MHz increased to 3.4. This high SWR is bad and is an indication of trouble. Now I'm glad I'm not Juan, because he will probably need to climb that 145-foot tower to find the trouble! Of course, he will check the coaxial connectors that are in the shack first. If he's smart, he will rent a helicopter to work on the beam.

Harry Hamm (Suzie's brother-in-law by a previous  
(continued on page 8)

C

D

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Sonoma County Radio Amateurs, Inc.  
Membership Meeting 3-6-2002  
MINUTES

- Call to Order, Verification of Quorum - The meeting was called to order by President Bill Hillendahl, KH6GJV at 7:34 PM at the Santa Rosa Agilent Technologies facility.
  - Introductions
    - Officers & Directors - The club officers and directors introduced themselves.
    - Guest Speaker - Greg AC6VJ was introduced.
    - Visitors - Bud Tyler, Al McKenna, Pay KG6JSL, KG6JSL, Christine Johnston, Len Gwinn WA6KLK, Tim WB8NJS
    - New Calls & Upgrades - None
- Approval of Minutes - Jeff W2JAB read the minutes of the 01-09-02 membership meeting. Tracy WB6TMY moved that they be approved as read. The motion passed.
- Approval of Minutes - Lee KE6EAQ moved that the minutes of the 02-06-02 membership meeting be approved as printed in Shortskip. The motion passed.
- Officer & Director Reports
  - Vice President - Brian N6IYY - Brian had nothing to report.
  - Secretary - Jeff Basham W2JAB
    - Mail and Communications - Jeff distributed the mail to the appropriate officers.
    - Field Day 2002 Merchandise - The ARRL has started selling their annual field day merchandise. Jeff W2JAB offered to do a group order through the club.
  - Treasurer - Vicki Cero KF6ZCT updated the membership on the financial position of the club.
- Directors -
  - Jim Lee KE6VGV - Jim had nothing to report.
  - John Breckenridge WB6FRZ - has nothing to report.
- Past President - Greg Gordon AC6VJ - Greg had nothing to report.
- Committee Reports
  - ARES - Rich Freitas KF6SZA - Rich invited everyone to check into the ARES net on 146.730 at 7:30pm on Monday evenings, and followed up on a part article he had put in Shortskip.
  - Rolling Toaster Communications Van - Lee KE6EAQ - Lee reminded everyone that there would be no work party for the next two weeks, but that we would resume on March 23<sup>rd</sup> at 10:00am.
  - Activities Committee - Mark Lockwood KK7CU - Mark had nothing to report.
    - Alcatraz Trip - Bill KH6GJV reported that he cut the check for the trip, and John WB6FRZ presented T-Shirt design choices to the club.
  - Newsletter Editor - Bill Hillendahl KH6GJV - Bill thanked John WB6FRZ for his article on SWR.
  - Public Service - John Mullan KD2L - John reported that our first event will be April 7, 2002 - The MS Walkathon. Low key event. Contact John if interested. He also reported that the next VE session will be on April 20<sup>th</sup>, 2002.
  - Repeater Committee - Greg AC6VJ reported that castle rock is currently in standby mode, and that something is interfering with 2 meters on English Hill. Greg is going to try to remedy the problem very soon. Greg said that the last communication he had gotten from Riley has been that the complaint had been turned over to the Wireless Telecommunications Bureau.
- Unfinished Business - None
- New Business - Len Gwinn WA6KLK talked to the club about many issues regarding the ARRL and Ham Radio in general. First, Len offered some suggestions for the club's communications van. He told the club about a new club, West Marin. He talked about the Emergency Communications convention, and the San Francisco Section Convention, along with Field Day. He also told of some changes with QST that he had gotten wind of. He invited anyone with input on the issues to contact himself, Jim Maxwell W6CF, Pac. Div. Director, or ARRL Headquarters.
- Member Bio - Brian Torr N6IYY told about his early days of Amateur Radio, and how he got involved. A random member each month will be called on for a short bio. Jeff W2JAB was selected for next month's bio. [Secretary's Note: I'm going to be out of town - you'll have to wait until May. -Jeff]
- Show & Tell - None
- Recess - There was a break.
- Program - AC6VJ and KD2L did a live demonstration of SSTV.
- Raffles -

- Regular - Brian N6IYY won the regular raffle. He donated his winnings back to the club.
  - Lottery - John Brady KF6PGW was selected for the membership lottery. John was not present and the lottery rolled over.
- Announcements
    - Next Program - Annual Homebrew Night and Bart Lee on 9/11
    - Board Meeting Next Wednesday - Furniture Traditions 6:30PM
  - Adjournment - The meeting was adjourned at 9:35 PM

Sonoma County Radio Amateurs, Inc.  
Board of Directors Meeting 3-13-02  
MINUTES

- Board Members Present: Bill Hillendahl KH6GJV, Brian Torr N6IYY, Jeff Basham W2JAB, Vicki Cero KF6ZCT, Jim Lee KE6VGV, and Greg Gordon AC6VJ
- Board Members Excused: John Breckenridge WB6FRZ
- Committee Chairmen Present: Mark Lockwood KK7CU, John Mullan KD2L, Rich Freitas KF6SZA
- Committee Chairmen Excused: Lee Dibble KE6EAQ
- Guests Present: Sue Mullan K8SUE
- Call to Order, Verification of Quorum, Introductions - The meeting was called to order by President Bill Hillendahl KH6GJV at 6:46 PM. The meeting was held at Furniture Traditions, 3450 Airway Drive. A quorum was present in that six of the seven voting board members were present.
  - Approval of Minutes - December 12, 2001 - Brian N6IYY moved that the minutes of the 12-12-01 Board of Directors meeting be approved as printed. The motion carried.
  - Approval of Minutes - February 13, 2002 - Greg AC6VJ moved that the minutes of the 2-13-02 meeting be approved as corrected. The motion carried.
  - Officer & Director Reports
    - Treasurer
      - Current Financial - Vicki Cero KF6ZCT gave the current financial report.
      - Audit Report - After discussion regarding the process of this item, it was tabled.
    - Officers
      - Vice President - Brian Torr N6IYY - Brian had nothing to report.
      - Secretary
        - Mail & Communications - Jeff W2JAB handed out the mail to the appropriate officers.
        - Not Present at April Membership Meeting - Jeff reminded the Board that he would not be in attendance at the April Membership meeting, April 3<sup>rd</sup>, 2002. Brian N6IYY agreed to take minutes on his behalf.
    - Directors
      - Jim Lee KE6VGV - Jim discussed the process for the audit report with the board.
      - John Breckenridge WB6FRZ - John was not present to make a report.
      - Greg Gordon AC6VJ - Greg had nothing to report.
  - Committee Reports
    - ARES - Rich Freitas KF6SZA - Rich updated the Board on a few new items for the ARES unit, and said that he was planning another Simulated Emergency Test in April.
    - Communications Van - Lee Dibble KE6EAQ - Lee was not present to make a report. Bill KH6GJV reported that there will be no work on the toaster next weekend, but the work will resume on March 23<sup>rd</sup> at 10:00am. Bill and Greg AC6VJ updated on the last few weeks of work.
    - Activities Committee - Mark Lockwood KK7CU - Mark had nothing to report.
      - Trip to Alcatraz - May 18-19, 2002 - Bill KH6GJV report the following details for the Alcatraz Trip. Cost: 18+ will cost \$100/person, 17 and under will cost \$50/person. Brian N6IYY and Mark KK7CU will organize the limited equipment that we will be able to take on the island. The T-Shirt and QSL card design were discussed.
    - Newsletter - Bill KH6GJV - The board decided that the April issue would be the last one that people who did not renew dues would get. Jeff W2JAB will provide information next month on a new mailing system through the USPS, which may save the club some money on the newsletter.
    - Public Service Committee - John KD2L reported the following event schedule for SCRAPS 2002: April 7, 2002 - MS Walkathon, May 4,



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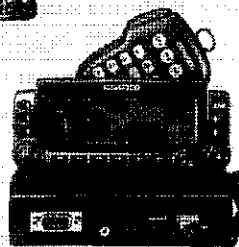
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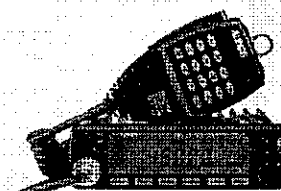
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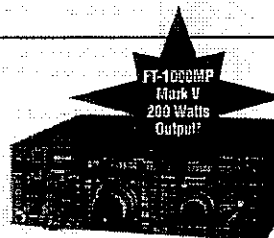
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