



CLUB STATION
W6LFJ

Short Skip

The Newsletter of
Sonoma County Radio Amateurs, Inc.

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REPEATER STATION
W6SON

VOLUME 33 NUMBER 4

APRIL 2008



APRIL FLOOBYDUST

by Dave Harrison, W6IBC
SCRA President

At the beginning of each year the SCRA Board of Directors tries to predict the club's income and expenses. The result is the Club's annual budget. This year's budget predicts up to \$4300 in income and up to \$3876 in expenses. We expect dues to account for \$1700 and hope donations will total \$1600. Short Skip advertising revenue should amount to \$500.00 and we will have other minor revenue sources such as receipts for the Holiday party, Field Day, technician classes, and badges and logos, all projected to yield \$500. On the expenses side, our largest expense remains Short Skip production and distribution costs amounting to \$800 (after half of our members take the electronic version of Short Skip). We will spend \$480 for our meeting room rental, \$300 for Field Day, \$350 for liability insurance, \$556 for the comm van, \$100 for badges and awards, \$70 for our World Radio listing, \$20 for our NARCC dues, \$200 for our Holiday party, and up to \$1000 on our repeater system upgrade project, funds permitting.

This month a member raised the issue of whether the donation from the Santa Rosa Cycling Club violated the FCC rules prohibiting "hiring" of amateur radio services. After looking carefully at the issue, I concluded that the donation was entirely and completely proper. SCRA does not offer or expect any compensation for its volunteer public service efforts. These efforts are given to many organizations who do not contribute to our club, and our services would not be withheld if any organization decided not to contribute. We are very grateful for all of our donations including the Cycling Club donation. If you, too, would like to donate money as well as your interest and time to the club, that would be wonderful and much appreciated. In a perfect world, we'd just sprinkle magical floobydust on our bills, and they would disappear. In the real world, the club runs on cash from you and from our donors. Thank you all for your generosity and support.

We had a terrific field trip in March. Six of us went to the SF National Maritime Museum at Pier 45, Fishermans Wharf, San Francisco, and toured the USS Pampanito and the SS Jeremiah O'Brien. Jerry Foster, WA6BXV, a docent and member of the Pampanito radio club, gave us an admiral's tour of the submarine, from stern to bow, with a special side tour of the conning tower (not generally open to the public). We put their ham station on the air and made a number of contacts. I shot some video footage during our tour, and I'll be showing some excerpts at our April meeting. Our thanks to Dave Santori, KF6CLG, for putting this trip together for us. If you missed it, you missed a good one! I hope we will be able to plan more trips like this one in the future, time permitting.

Four of us "explored" Lake Sonoma on Saturday March 15th to investigate the radio conditions that we'll be encountering during the April 12th 50 mile footrace public service event. Looks like we'll be able to use 2 meter hand helds at the rest stops and the club's portable base station at the south end start-finish. This should be a very interesting event, one that is different than others we've done before. Thanks to Craig K6XLT, Dave KF6CLG, and Pat KG6JSL for joining me on this outing. (We had a terrific lunch at the Bear Republic Brewing Co. in Healdsburg following our outing).

Our thanks to Pat KG6JSL and John KE5RI for their talks on basic construction practices and techniques at our February meeting. This month, I'll be talking about emergency, backup and alternative power sources, to help you get ready for our extensive calendar of public service events, and to be prepared in case of a real emergency. Hope to see you there.

(In case you really want to know, "floobydust" is not a magical powder or mystical power, or something associated with April Fools Day. Rather, the term "floobydust" was used in a 1970s Data Book by National Semiconductor, in a context meaning "miscellaneous".)

73, Dave, W6IBC
SCRA President

2008 Club Officers

President	Dave Harrison	W6IBC	707-838-8155
Vice President	Becky Pippin	KE6PZV	707-874-9390
Secretary	Fred Polkinghorn	KQ6OB	
Treasurer	Pat Coyle	KG6JSL	
Director	John Chavez	KG6PEP	
Director	Dave Santori	KF6CLG	
Past President	John Felton	KE5RI	

Committee Lineup / Contacts

Membership	John Guaraglia	KI6CAU	
Program	Becky Pippin	KE6PZV	707-874-9390
EmComm	Rich Freitas	KF6SZA	
Field Day	Brian Torr	N6IYY	707-575-5871
Activity	Dave Santori	KF6CLG	707-585-1873
Public Service	Craig Gaever	K6XLT	707-545-4133
Mentoring:	John Breckenridge	WB6FRZ	707-217-1017
Repeater	John Felton	KE5RI	
Volunteer Exam			
Liaison	Brian Torr	N6IYY	707-575-5871
Antenna Ordinance-Legal	Lee Dibble	KE6EAQ	707 544-1675
Public Relations	Bill McCall	W6WDM	707 538-2844
Public Relations	Jeff Basham	KK6JAB	707-291-7355
Refreshments	Fred Polkinghorn	KQ6OB	
ARRL DXCC/WAS Manager	Chuck Ternes	N6OJ	707 763-2528

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SCRA E-Mail	scra@sonomacountyradioamateurs.com
SCRA Web Site	http://www.sonomacountyradioamateurs.com

Tuesday Night Net

Remember to check in to the SCRA net each **Tuesday** evening on the **147.315+(PL 88.5)** repeater at **7:00 PM**. Announcements are made of upcoming SCRA and other amateur radio activities in the area. You will also hear the weekly *Amateur Radio Newsline* broadcast.

Short Skip Advertising Rates

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Pre-printed inserts (each)	\$35 per month

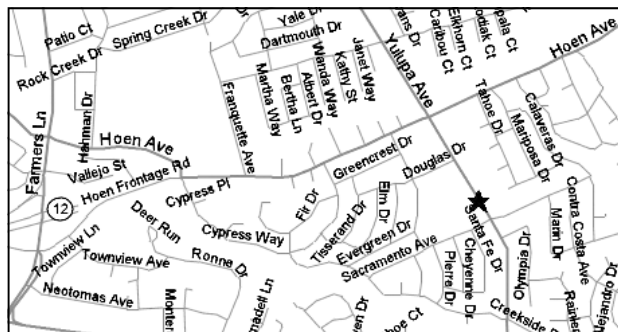
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**SCRA Club Meetings**

The club normally meets the first Wednesday of each Month. Exceptions are holidays or other big events.

Next meeting is 7:00 PM Wednesday, April 2nd at:

Luther Burbank Art & Garden Center
2050 Yulupa Avenue
Santa Rosa, CA



All are welcome!

Please join us at our next meeting. Anyone interested in Amateur Radio may be eligible for membership. A membership application is included in this newsletter.

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

Hungry before the meeting?

Join us for dinner! We meet at Coco's restaurant, 1501 Farmers Lane (corner of Farmers & Hwy 12), Santa Rosa. People start showing up at 5:30 PM. No RSVP is required.

See you there every month except December.

If you are not getting the ARRL San Francisco Section news by e-mail and you are an ARRL member, be sure to subscribe under your Members Only information or go to these web-sites:

<http://www.arrl.org/sections/?sect=SF>
<http://www.pdarrrl.org/sfsec/>

Sonoma County Radio Amateurs, Inc Membership Meeting, March 5, 2008 Minutes

1. Call to Order - President Dave W6IBC called the meeting to order at 7:02 at the Luther Burbank Arts and Garden Center.

2. Since we had a number of new Hams, Dave started by introducing club officers and attending members.

3. Interfering Repeater – David Price WA6FUL spoke to the club regarding his efforts to eliminate interference from his repeater in the south bay. Next Sunday, he is planning to change his repeater antenna from a corner reflector to a dipole system. He requested that our members monitor our repeater from 11-1 on Sunday to determine whether this change will eliminate the interference.

Program – Our speaker was Pat KG6JSL and John KE5RI who spoke on ham radio construction tips and techniques. They showed examples of simple projects and provided a list of recommended tools. They also discussed the merits of different meters and soldering iron. Their best advice is to start with simple projects and read the instructions before starting.

4. Approval of Minutes – The call sign for John WB6FRZ was misspelled in the February minutes. The minutes were approved with this correction.

5. Treasurer's Report – Pat, KG6JSL reported that the club was solvent. He also reminded the club that annual dues should be submitted by March 1.

6. Future Programs – Becky KE6PZV presented the list of programs for the remainder of the year.

7. Club Logo Patches – Becky KE6PZV reported that we could purchase club patches for \$4 in quantities of 50. Several members felt that we can get a better price if we shop around. Becky will get quotes from several additional vendors.

8. Membership – Membership Chairman, John KI6CAU, is working on a new club brochure, which will be available to pass out to prospective new members. He will also place them in radio related business. John asked for any suggestions for recruiting new members.

9. Repeater Report – John, KE5RI reported that he has purchased the new Kenwood repeater which is now being programmed. The repeater will be installed as soon as Greg AC6VJ returns from sea.

10. Public Service – Craig K6XLT reported that he has received excellent feedback on the club's participation in the Amgen Tour of California bike race. He needs volunteers for the following upcoming events: Lake Sonoma 50 Mile Run on April 12, Wine Country Century on May 3, MS Walkathon on May 4, The Human Race on May 10, Terrible Two on June 21, Juvenile Diabetes Ride on June 28 and Wine to Waves on September 13.

11. ARES – Rich KE6SZA announced that EM-COMMWEST emergency radio conference will be held in Reno on May 2-4. Anyone interested in attending should get their reservations in immediately. He also invited members interested in emergency communications to join ARES and participate in our Monday night net at 7:30.

12. Short Skip – The Short Skip newsletter is now being distributed via e-mail. All members were requested whether they want to receive Short Skip via e-mail and to supply an updated e-mail address. There was some discussion on whether Short Skip should be put on the club website. This will be discussed at the Board meeting next week.

13. Ham Class and Mentoring – John WB6FRZ reported that the recent Technician class went well. A nine-week General class will be conducted on Tuesday evenings starting on March 25. The General class will be from 6:16 -8. Morse Code Class will be from 8-9. Any new Ham who would like a mentor should contact John. He is also looking for club members to mentor new club members.

14. VE Program – Brian N6IY reported that he had two upgrades during the VE session on February 9. An additional 13 Hams passed their Technician test following the Ham class on February 24. Brian has tentatively scheduled another VE session for April 5.

15. Field Day – Brian N6IY reported that Youth Park is available for Field Day on June 27-29. The cost would be \$300. Brian is also looking at holding Field Day at Finley Park.

16. Field Trip – Dave F6CLG announced that a field trip to the USS Pampanito on Saturday, March 22. Anyone interested in attending should sign up immediately.

17. Excess Club Property – Dave W6IBC reported that the club has some excess items which he suggested that we sell. These items include; Icom M700, TGI MQ-1 antenna, Drake TR7 HF transceiver, DX77 multiband Vertical antenna, and a Radio Shack HTL 202 Handi-talkie. The motion to sell these items was proposed by Bill KH6GJV and passed.

18. Change to Net Script – Dave W6IBC reported that a proposal to change the script for the Tuesday night net to include A motion to change the script was made and passed.

Adjournment - The meeting was adjourned at 9:30 PM.

Contest Corner continued from page 7)

19-20 Apr - **YU DX Contest**, CW, 160-10 meters. See: yudx.net.

19-21 Apr - **Holyland DX Contest**, all modes, 160-10 meters. See: www.iarc.org.

20 Apr - **ES Open HF Championship**, Phone/CW, 80-40 meters. See: www.erau.ee/index.php?newlang=eng.

23 Apr - **VHF Spring Sprints**, Phone/CW, 70 cm. See: www.sysadnet.com/vhfsprintrules.htm.

26-27 Apr - **Florida QSO Party**, Phone/CW, 40-10 meters. See: www.floridagsoparty.org.

26-27 Apr - **Helvetia Contest**, all modes, 160-10 meters. See: www.uska.ch/e_index.htm.

26-27 Apr - **Nebraska QSO Party**, all modes, 160-10 meters. See: www.qsl.net/hdxa.

26-27 Apr - **Old-Old-Timers Club QSO Party**, Phone/CW, 80-10 meters. See: www.ooc.us/party.

26-27 Apr - **SP DX RTTY Contest**, 80-10 meters. See: www.pkrvg.org/zbior.html.

Sonoma County Radio Amateurs, Inc Board of Directors Meeting, March 12, 2008

Board Members Present: David W6IBC, Fred KQ6OB, Becky KE6PZV, Dave KF6CLG and John KG6PEP. Absent John KE5RI (Illness) and Pat KG6JSL (Business). Guest Present: Bob WB6TGI, Brian N6IYY, and John WB6FRZ.

1. Call to Order: Verification of Quorum – President Dave W6IBC called the meeting to order at 7:00 PM. The meeting was held at Narsi's Restaurant, Santa Rosa. A quorum was present.

Old Business

1. Approval of Minutes – The minutes from the January BOD meeting was reviewed and approved.
2. Treasurer's Report – There was no treasurers report
3. Proposed Budget – Dave W6IBC presented the proposed budget for 2008. There was some discussion on specific line items some of which were modified. Becky KE6PZV motioned that the budget be approved with these corrections which was unanimously passed by the board.
4. Short Skip – The board decided that the standard distribution of Short Skip would be by e-mail. Any member wishing to receive a printed copy by mail needs to notify Rich KE6SZA by e-mail or sign up at the next meeting. The board also agreed that 2-month old issues of Short Skip would be put on the club website.
5. Field Day – Brian N6IYY reported that the cost of securing Youth Park for Field Day is \$196. He would also like to make this event cost neutral by charging a small fee for each participant. The board asked Brian to secure Youth Park and approved the amount.
6. Repeater Committee– John KE5RI was absent. Dave W6IBC reported that the interference from the repeater in the south bay is very bad in spite of the change in the antenna last Sunday. The signal from this repeater was S7 during our net on Tuesday. The board felt that this is unacceptable and will ask John KE5RI to notify W6FUL trustee of the interfering repeater to look for another repeater frequency or change the location of their antenna so that there is no interference in the North Bay. Dave W6IBC also reported that the new repeater has arrived and is currently being programmed. Installation of the repeater will be held off until Greg AC6VJ returns from sea.
7. Future Programs – Dave W6IBC will make a presentation on "Backup Power for Ham Radio" at the April meeting. Fred KQ6OB will make the antenna presentation in May. June is Field Day/ARES. July will be a presentation on DXpeditions. August is boat anchor night. September will be a repeater update. October is digital night with a presentation on Winlink 2000. November is club elections and Ham Jeopardy, and December will be the holiday party. Becky KE6PZV was requested to organize a program for January.
8. Activities – Dave K6CLG reported that he has scheduled an Admirals tour of the USS Pampanito submarine on Saturday, March 22 beginning at 10 AM. The cost is \$9 (seniors 62+ is \$5). The tour is open to all members and guests.

Dave W6IBC will put this information on the club reflector. Potential activities in the future would include a tour of KPH (Dave W6IBC), a repeater contest (Fred KQ6OB), and the fall picnic (Becky KE6PZV).

9. Club Logo – Becky KE6PZV reported that she is investigating additional sources for logo patches and T-shirts. John KG6PEP stated that he uses a Chinese vendor for his scout badges. John will forward contact info to Becky.

10. IRC Section 501C3 Status – Dave W6IBC reported that the club is very close to submitting a request for non-profit status. Plans for fund raising events will be held off until the club receives this status.



John, KE5RI and Pat, KG6JSL spoke on ham radio construction tips and techniques at the March meeting.

11. Raffle Committee – Bob KE6TGI asked permission of the board to purchase prizes for the club raffles. The board asked Bob to make the raffle cost-neutral and to see if some of our advertisers would donate prizes. The board authorized Bob to purchase a few small prizes


The meeting was adjourned at 8:17.

VOMARC HAMFEST (May 3, 8am - 1pm)

We would like to invite you and the members of [SONOMA COUNTY RADIO AMATEURS](http://www.sonomacountyradioamateurs.org) to the Valley of the Moon Amateur Radio Club (VOMARC) Hamfest on May 3rd (8am to 1pm) in beautiful Sonoma. Activities include a swap meet, VE session, breakfast, fox hunt and a lot friendly folks. Go to our website, www.VOMARC.org for more info, flyer and a map or e-mail us.

73,

Dave Dammuller, President (VOMARC)
Eileen Adams, Vice President (VOMARC)



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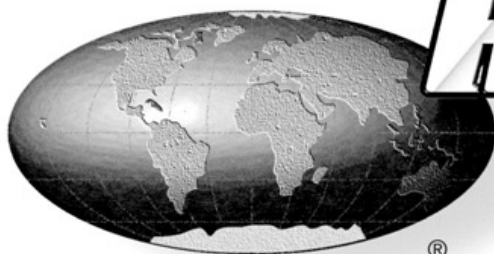
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RADIO FREQUENCY WAVE BEHAVIOR IN TRANSMISSION LINES AND CIRCUITS

A STUDY PRESENTED BY:

John R. Felton, KE5RI

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Synopsis: Previous Engineering Practices regarding Radio Frequencies [RF] propagation within coaxial and open wire feed lines, as well as antenna structures. Have not taken velocity induced losses into consideration. This study shall attempt to show past deficiencies in design and suggests methods of correction to improve system performance.

Terms Used:

RFW velocity - The velocity of an RF wave in a vacuum is measured in meters/second. In free space the actual value is 299,792,458 M/Sec. [300,000,000 will be used in this study because the error is only 0.06918%]

Solid Angle - Analytical calculation of a solid angle defined by a cylindrical detector and a point cosine source with parallel axes. Unit of measure is angular degrees (metric equivalent).

Turning Velocity - the Velocity at which electrons in a conductor or suspended between the E field and H- field are changed in direction. Unit of measure is in radians/sec (metric equivalent).

The conversion to the English system yields Angular Velocity, also in radians/sec, except in the second case, seconds are from the English system compared to Metric seconds. The conversion ratio is 60:1

Due to the length of the original article, I have provided a Summary of findings to fit space allotted in this month's issue of Short Skip.

Summary:

Electrons, though having extremely low mass, conform to the same physical laws as all particle in nature. Newton's first law of motion still applies. "A body in motion tends to stay in motion ...and in a straight line..." Herein lies the problem. Electrons traveling at 300,000,000 meters/second do not like to change direction. So what happens when they encounter a sharp corner. Logic tells us that will attempt to miss the corner and "fly off the road - so to speak. Now we know that the electrons are traveling in the wire. But we also know that because of skin effect they are traveling on the surface of that wire. Therefore skin effect makes electrons even more susceptible to "not making the corner. Electrons that do not stay within the conductor reduce the current that was originally flowing. Now, knowing that Ohm's law tells us that power is equal to the current squared times the resistance. Resistance in this case is not changed but the current is reduced. There-

fore, power is lost as the square of the current that has left the wire. This is also important in very low power circuits such as found in the front end of a radio receiver. In this case for a given loss of electrons, assuming that resistance is unchanged, voltage loss is directly proportional to electrons lost. When dealing with extremely small signals, i.e., those measured in tenths of microvolts, any loss is unacceptable. This is not a trivial point.

So what can be done to substantially improve system performance? Simply put, eliminate sharp bends. Angles of ninety degrees or more are especially detrimental. All wire should make gentle bends. This applies to circuit traces as well. Cut wire ends should be carefully turned back to form a loop. These loops should always be soldered in place. Studies have shown that electrons approaching a dead end cannot stop and are ejected from the end of the wire. These end losses can typically exceed bend losses by as much as 83.6 percent.

In conclusion, I hope that the ideas presented here assist you in understanding how something as simple as wire bends are often overlooked in circuit design. Now you have the knowledge to vastly improve your radio's performance.

Happy Hamming,

John
KE5RI

For further information the author may be contacted at his office at B.S.A.A., Windover, CA.

April Meeting Topic:

Dave Harrison, W6IBC will be presenting the program for this month's meeting. The topic is: Back Up Power Sources for Ham Radio.



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CONTEST CORNER

by Kevin Alt, K6BSG

Hello testers. I hope everyone had a good Easter. No major contests this month, but plenty of state QSO parties and Japan DX contest to maintain that contest edge. Happy DX'ing!

1-3 Apr **DX YL to North American YL**, CW, 160-10 meters. See: www.ylrl.org.

4-6 Apr - **Montana QSO Party**, All Modes, 160 meters – 70 cm. See: www.fvarc.org.

5-6 Apr - **MO QSO Party**, Phone/CW, 160-10 meters. See: www.w0ma.org/mo_qso_party.htm.

5-6 Apr - **QCWA Spring QSO Party**, Phone/CW, all bands. See: www.qcwa.org/qso-party.htm.

5-6 Apr - **QRP ARCI Spring QSO Party**, CW, 160-10 meters. See: www.qrparci.org.

5-6 Apr - **SP DX Contest**, Phone/CW, 160-10 meters. See: www.contest.spdxc.org/pl/en/index.php.

5-6 Apr - **EA RTTY Contest**, 80-10 meters. See: www.rttycontesting.com/rules/earttyrules2007.pdf

7 Apr - **Low Power Spring Sprint**, CW, 160-10 meters. Contact: om3kfv@zoznam.sk.

7 Apr - **VHF Spring Sprints**, Phone/CW, 2 meters. See: www.sysadnet.com/vhfsprinrules.htm.

8-10 Apr - **DX YL to North American YL**, Phone, 160-10 meters. See: www.ylrl.org.

12 Apr - **EU Spring Sprints**, CW, 80-20 meters. See: www.eusprint.com.

12 Apr - **PSK31 Flavors Contest**, 20 meters. See: www.podxs070.com.

12-13 Apr - **EU EME Contest**, Phone/CW, 2 meters, 2.3 GHz, 3.4 GHz. See: www.dubus.org.

12-13 Apr - **Japan International DX Contest**, CW, 160-10 meters. See: jidx.org.

12-13 Apr - **Yuri Gagarin DX Contest**, CW, 160-10 meters. See: www.srr.su.

12-14 Apr - **GA QSO Party**, Phone/CW, 160-6 meters. See: gqp.contesting.com.

15 Apr - **VHF Spring Sprints**, Phone/CW, 220 MHz. See: www.sysadnet.com/vhfsprinrules.htm.

19 Apr - **EU Spring Sprints**, Phone, 80-20 meters. See: www.eusprint.com.

19 Apr - **TARA Skirmish Dig Pfx Contest**, CW, 160-6 meters. See: www.n2ty.org/seasons/tara_dpx_rules.html.

19-20 Apr - **EA QRP Contest**, CW, 80-10 meters. See: www.eaqrp.com.

19-20 Apr - **Kids Roundup**, Phone, 80 meters – 70 cm. See: www.ki3ds.org.

19-20 Apr - **Michigan QSO Party**, Phone/CW, 80-10 meters. See: www.miqp.org.

19-20 Apr - **Motorola QSO Party**, Phone/CW, 160-2 meters. See: www.qsl.net/k9mot/motqp.htm.

19-20 Apr - **Ontario QSO Party**, Phone/CW, 160-2 meters. See: cco.ve3xd.com/oqp.

continued on page 3

Sc

Sonoma County Radio Amateurs, Inc. Membership Application

Please Print Clearly

New ☐ Renewal ☐

Name _____ Call Sign _____ License Class _____ Date _____

Address _____ H Phone _____ W Phone _____

City/State _____ Zip _____ E-Mail _____

ARRL Member? Yes ☐ No ☐

Dues & Fees: (SCRA dues year is 3/1/05 to 2/28/06)

Individual / Associate Member	\$24 (\$6.00/qtr)
Family Membership	\$36 (\$9.00/qtr)
Under 18 Membership	\$18 (\$3.00/qtr)
Badge	\$10

Badge Information

Call Sign _____
First Name _____
City _____

Payment Calculations: Make checks payable to SCRA

Dues - Full Year	\$ _____
Dues -	
Prorated ____ Qtrs. x \$ ____ /qtr	\$ _____
Badge	\$ _____
Other - _____	\$ _____
Donation	\$ _____
Total	\$ _____

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

Tentative Programs for 2008:

January 2: D-Star Tim Barrett K6BIV, (program completed)

February 6: Satellite Communications, ARISS and the SRJC Earth Station, Tim Bosma W6MU

March 5: Basic Ham Radio Construction Practices, Pat KG6JSL and John KE5RI

April 2: Backup power sources for Ham Radio, Dave W6IBC

May 7: Antenna Night, antennas and counterpoises, NVIS, Fred KQ6OB

June 4: Field Day Preparations, Brian N6IYY and Emcomm aspects of Field Day Rich KF6SZA

July 2: DXpeditions and DXing, Brian N6IYY

August 6: Boatanchor/Homebrew night (Group presentation)

September 3: Repeater update, how a repeater works, SCRA's repeater system now and in the future, John KE5RI

October 1: Digital Night update: IRLP-how to make it work. APRS, essentials and requirements, hands on digital (TBD)

November 5: SCRA Jeopardy Brian N6IYY (Club elections night)

December 5: (Friday) Holiday Party (date shift from Wed to Fri confirmed by phone 1-14-08 W6IBC)

Club Activities:

February 8-19: Amgen Tour of California (Public Service)

March 22: Field Trip to SF Maritime Museum USS Pampanito, Dave KF6CLG

April (day TBD): ARES Safety Fair, Rich KF6SZA

April 12: Lake Sonoma Run

May 3: Wine Country Century (Public Service, Craig K6XLT)

May 3: VOMARC Hamfest

May 2-4: ARES Emcomm West, Reno NV Rich KF6SZA

May 4: SRJC Day Under the Oaks (Dave W6IBC)

May 4: MS Walkathon (Public Service, Craig K6XLT)

May 10: Human Race (Public Service, Craig K6XLT)

June 21: Terrible Two Bicycle event (Public Service, Craig K6XLT)

June 27-29: Field Day (Brian N6IYY)

August 16-17: PCAM Wings over Wine Country (Pat KG6JSL)

September 13-14: MS Waves to Wine (Public Service, Craig K6XLT) ***Note Date Change***

October 4: SCRA Picnic and Fox Hunt (Becky KE6PZV)

October 17-19: Boy Scout Jamboree on the Air (John KG6PEP)

October 17-19: ARRL Pacific Division PACIFICON convention

December 5: Holiday Party

Optional activity (TBD July?): Mini DXpedition, KPH visit

Sonoma County Radio Amateurs, Inc.
P.O. Box 116
Santa Rosa, California
95402-0116

Return Service Requested