

CLUB STATION
K6SON

Short Skip

The Newsletter of

Sonoma County Radio Amateurs, Inc.

P.O. Box 116, Santa Rosa, CA 95402-0116 707-579-9608

<http://www.sonomacountyradioamateurs.com>

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REPEATER STATION
W6SON

Volume 40, Number 10

October 2015

PRESIDENTS MESSAGE—OCTOBER 2015



The summer radio season is over and a busy summer it was with Public Service and activities for everyone. The Club participated in Public Service events, Public demonstrations of ham radio, license classes, Mini-DX and a trip to the USS Hornet, as well as just participating in club meetings and being involved in events and activities. There are too many people involved in all of this to name personally, but a hearty Thank You to all. It is only

through membership participation the makes the Club viable.

Closing out Pubic Service this year is Levi's Gran Fondo on October 3. The Club is also sponsoring a radio booth at the North Bay Science Fair on October 24. Contact Darryl, KI6MSP to sign up for this.

As we enter the fall radio season, check out the DX and Contest page in Short Skip. As our outside ac-tivities diminish, fall is a good time to get familiar with HF and VHF/UHF con-testing. Just listening will vastly assist in increasing your radio skills. Participa-tion is the best way to learn how to work your radio efficiently and correctly. Like everything, radio skills are only improved with practice. Hopefully we will get some rain and listening to the radio and getting on the air is a great way to spend a rainy day.

This month's meeting program will feature a video by John Breckenridge graphically demonstrating various antenna designs by way of a microwave antenna in a suitcase. This video from ARRL (1996) features Frank Rutter, K3AW, now a silent key, speaking to a group at the Johns Hopkins Applied Physics Laboratory in 1981. The miniature antenna designs make this video particularly demonstrative of the effects of antenna designs of all types.

A reminder to all that the November meeting is elec-tion time for SCRA officers and directors. All offices are open for candidates, and Dave, W6IBC, is leading the Nominating Com-mittee in recruiting potential candidates for Officers and Direc-tors. All members are urged to consider running for an office. The Club always needs an infusion of new talent and new ideas. The Club does not operate on auto-pilot. It needs members willing to step up to responsible positions. Anyone interested should contact Dave at w6ibc@arrl.net

Serving as an officer or director is not a difficult job.

Attendance at Club and Board meetings is about the only serious commitment required and these are only twice a month. There is also a great feeling of satisfaction in helping the Club and other members keep SCRA alive and active.

Thanks again to everyone for their contributions to the Club, and a happy Halloween to all. Anyone ever tried "trick or treat" by radio?

Pat, KG6JSL

OCTOBER MEETING PROGRAM ANTENNAS

John, WB6FRZ, has a fascinating video in which antenna theory of various types of antennas is graphically illustrated. En-titled "Everything you always wanted to know about antennas but were afraid to ask." This video from ARRL (1996) features Frank Rutter, K3AW, now a silent key, speaking to a group at the Johns Hopkins Applied Physics Laboratory in 1981. The radiation pat-terns and polarities of various types of antennas are investigated using a microwave antenna range built into a suitcase." The micro-wave antenna system is small enough to permit demonstration of various antenna designs and shapes in a method small enough for actual visualization.

Subjects covered will be Verticals, Dipoles, Yagis, Folded di-poles and quads, Polarization, Lobe structure changes as antenna element lengths are changed and antenna heights varied. Be sure to catch this.

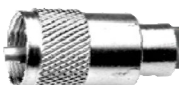
JOIN ARRL, THE AMERICAN RADIO RELAY LEAGUE

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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 this Web site:

<http://www.arrl.org/Groups/view/san-francisco>



2015 Club Officers

President	Patrick Coyle coylaw@sonic.net	KG6JSL
Vice President	Brian Torr	N6IYY
Treasurer	Mike Von der Porten	AD6YB
Secretary	Iola Beckley	KK6HRE
Director	Joe Fortuna	K6AWA
	Jeff Tonelli	K16PBF
Past President	Charlie Sikes	KZ6T

Committee Lineup/Contacts

Activities	Darryl Paule, K16MSP	ki6msp@arrl.net
ARES Liaison	Brian Torr, N6IYY	n6iyy@arrl.net
DX/Contest	Kevin Alt, K6BSG	kalt@ieee.org
Education	Dave Harrison, W6IBC	w6ibc@arrl.net
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 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 broadcast.

Short Skip Advertising Rates

Business Cards	\$12 per month
1st Quarter Column	\$13 per month
Each Additional Quarter Column	\$4 per month
Full page (one side)	\$35 per month
Pre-printed inserts (each)	\$35 per month

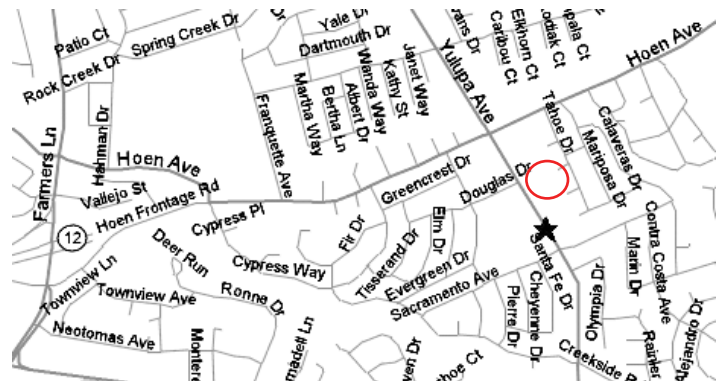
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SCRA Club Meetings

The club normally meets the first Wednesday of each month at 7:00 pm. Exceptions are holidays or other big events.

Meeting location:
 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 IHOP restaurant, 4th and Farmers Lane, Santa Rosa. People start showing up at 5:15 PM. No RSVP is required.

BOARD OF DIRECTORS OCTOBER MEETING CHANGE to Thursday, October 15, 2015, at 6 PM. This is for the October meeting only.

IHOP Restaurant
 2745 4th Street
 Flamingo One Stop Shopping Center
 Santa Rosa, CA 95405
 No Host Dinner begins at 5:30 PM.
 Members get a 15% discount on meals.

Committee Meetings

Meetings are TBA this month.
 Check SCRA blogs for announcements.



SCRA LOANER RADIOS

SCRA has a Yeasu 2900 VHF radio available for use by members as a loaner. Contact Charlie, KZ6T, at charliesikes@me.com

EMERGENCY VESTS

Anyone wanting an emergency vest with name and call sign contact Wells, KK6EXC, at sylvan1hills@gmail.com

UPGRADE TO GENERAL OR AMATEUR EXTRA CLASS

Get more privileges and enjoyment from your Ham Radio Hobby. Mentoring assistance is available. Contact Dave W6IBC, SCRA Education Chair, at 707-838-8155 or w6ibc@arrl.net.

CONTEST CORNER by Kevin Alt, K6BSG

Hello testers. Lots of activity this month culminating with the CQ WW SSB contest at the end of the month. Some new contests this year as well, so take an occasional break from football and check them out. Happy DX'ing!

1 Oct – SARL 80 Meter QSO Party – SSB, 80 meters. See: www.sarl.org.za.

1 Oct – NRAU 10 Meter Activity Contest – All modes, 10 meters. See: www.nrau.net/activity-contests.

2 Oct – NCCC Weekly Sprint – CW, 80-15 meters. See: www.ncccsprint.com/rules.html.

2-4 Oct – YLRL YL Anniversary Party – All modes, all bands. See: ylrl.org/index.php.

3 Oct – TARA PSK Rumble Contest – PSK, 160-6 meters. See: www.n2ty.org/seasons.

3 Oct – German Telegraphy Contest – CW, 80-40 meters. See: www.agcw.org/index.php/en.

3 Oct – FISTS Fall Slow Speed Sprint – CW, 80-10 meters. See: fistsna.org/operating.html/#sprints.

3 Oct – 4 State 4x4 QRP Sprint – CW/SSB, 160-10 meters. See: www.4sqr.com.

3-4 Oct – 15-Meter SSTV Dash Contest – SSTV, 15 meters. See: contests.wsstvc.org/rules.

3-4 Oct – Oceania DX Phone Contest – Phone, 160-10 meters. See: www.oceaniadxcontest.com.

3-4 Oct – Russian WW Digital Contest – Digital, 160-10 meters. See: www.rdrclub.ru.

3-4 Oct – TRC DX Contest – CW/SSB, 80-10 meters. See: www.trcdx.org/trcdxc/index.html.

3-4 Oct – California QSO Party – CW, 160-2 meters. See: <http://www.cqp.org/Rules.html>.

3-4 Oct – WAB HF Phone – Phone, 20-10 meters. See: wab.intermip.net.

4 Oct – UBA ON Contest – SSB, 80 meters. See: www.uba.be/en/hf/contest-rules.

4 Oct – RSGB 21/28 MHz Contest – Phone/CW, 15-10 meters. See: <http://www.rsgbcc.org/hf>.

6 Oct – ARS Spartan Sprint – CW, 80-10 meters. See: www.arsqrp.blogspot.com.

7 Oct – Weekly Phone Fray – SSB, 160-15 meters. See: www.perluma.com/PhoneFray.pdf.

7 Oct – 432 MHz Fall Sprint – CW/Phone, 432 MHz. See: svhfs.org.

7-8 Oct – CWops Weekly Mini-CWT Test – CW, 160-10 meters. See: www.cwops.org/cwt.html.

9 Oct – NCCC RTTY Weekly Sprint – RTTY, 160-15 meters. See: www.ncccsprint.com/rttyns.html.

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...Contest Corner continued from page 3

10 Oct – 10-10 Int. 10-10 Day Sprint – all modes, 10 meters. See: www.ten-ten.org/index.php/activity.

10 Oct – Microwave Fall Sprint – CW/Phone, 902 MHz and up. See: svhfs.org.

10 Oct – FISTS Fall Unlimited Sprint – CW, 80-10 meters. See: www.fistsna.org.

10-11 Oct – Makrothen RTTY Contest – RTTY, 80-10 meters. See: home.arcor.de/waldemar.kebsch.

10-11 Oct – Oceania DX CW Contest – CW, 160-10 meters. See: www.oceaniadxcontest.com.

10-11 Oct – Scandinavian Activity Contest – SSB, 80-10 meters. See: www.sactest.net/blog/rules.

10-11 Oct – QRP ARCI Fall QSO Party – CW, 160-10 meters. See: www.qrparci.org/contests.

10-11 Oct – SKCC Weekend Sprintathon – CW, 160-6 meters. See: www.skccgroup.com.

10-11 Oct – Pennsylvania QSO Party – CW/Digital, 160-2 meters. See: www.nittany-arc.net.

10-11 Oct – Arizona QSO Party – CW/Digital, 160-2 meters. See: www.azqsoparty.org.

10-11 Oct – PODXS 160 Meter Great Pumpkin Sprint – digital, 160 meters. See: www.podxs070.com.

11 Oct – UBA ON Contest – CW, 80 meters. See: www.uba.be/en.

14 Oct – NAQCC CW Sprint – CW, 80-20 meters. See: naqcc.info/sprint201510.html.

14 Oct – RSGB 80 Meter Club Sprint – CW, 80 meters. See: www.rsgbcc.org/hf.

17 Oct – Iowa QSO Party – All modes, all bands. See: www.wa0dx.org/IAQSO.

17 Oct – Feld Hell Sprint – Digital, 160-6 meters. See: sites.google.com/site/feldhellclub.

17-18 Oct – JARTS WW RTTY Contest – 80-10 meters. See: jarts.jp/rules2015.html.

17-18 Oct – 10-10 Int Fall Contest – CW, 10 meters. See: www.ten-ten.org.

17-18 Oct – New York QSO Party – All modes, all bands. See: nyqp.org/wordpress.

17-18 Oct – Stew Perry Topband Challenge – CW, 160 meters. See: www.kkn.net/stew.

17-18 Oct – Worked All Germany Contest – Phone/CW, 80-10 meters. See: www.darc.de.

17-18 Oct – South Dakota QSO Party – CW/Digital, 160-2 meters. See: www.kb0wsw.com/SDQP.

17-19 Oct – Telephone Pioneers QSO Party – All modes, 160-2 meters. See: www.tpqso.com.

18 Oct – Asia-Pacific Fall Sprint – CW, 20-15 meters. See: jsfc.org/apsprint/aprule.txt.

18 Oct – UBA ON 2 Meter Contest – CW, 2 meters. See: www.uba.be/en.

18-19 Oct – Illinois QSO Party – All modes, 160-2 meters. See: www.w9awe.org/ILQP.html.

19 Oct – Run for the Bacon QRP Contest – CW, 160-10 meters. See: fpqrp.org/pigrun.

19-23 Oct – ARRL School Club Roundup – All modes, all bands. See: arrl.org/school-club-roundup.

24-25 Oct – CQ WW SSB Contest – Phone, 160-10 meters. See: www.cqww.com/rules.htm.

28 Oct – SKCC Sprint – CW, 160-10 meters. See: www.skccgroup.com.

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...Contest Corner continued from page 4

28 Oct – UKEICC 80 Meter Contest – CW, 80 meters.
See: www.ukeicc.com/which-contest.

29 Oct – RSGB 80 Meter Club Sprint – SSB, 80 meters.
See: www.rsgbcc.org/hf.

31 Oct – Feld Hell Sprint – Digital, 160-6 meters. See:
sites.google.com/site/feldhellclub.

31 Oct – 1 Nov – ARRL EME Contest – all modes, 50-
1296 MHz. See: www.arrl.org/eme-contest.

31 Oct – 1 Nov – Russian WW MultiMode Contest –
All modes, 160-10 meters. See: www.rdrclub.ru.

2015 SCHEDULE OF EVENTS

Check the [Club website](#) for details

October 16-18: Jamboree on the Air

October 16-18: [Pacificon](#)

October 24: North Bay Science Fair

November 20-22: Technician Li-
cense Class

December 2: Club Holiday Party

December 5: VE Open Session

JAMBOREE ON THE AIR

This year the local Boy Scout Council will not be holding a Jamboree on the Air event due to personnel shortages.

It will still go on worldwide, so we can support the event by getting on the air and making contacts with scouts around the globe. The event goes from Friday evening, Oct 16 through Sunday evening, Oct 18. A change for this year is there are no specific start or end times. Guidelines and recommended frequencies can be found at http://www.scouting.org/jota/operators_guides.aspx

Next Open VE Session: Saturday, December 5

Our next open VE exam session is scheduled for Saturday, Dec 5. Contact Brian for exact time, usually from 9:00 am until noon. The location will be the Bennett Valley Grange Hall, 4145 Grange Road, Santa Rosa. Walk-ins will be accepted and all test elements will be administered.

(http://www.sonomacountyradioamateurs.com/ve_testing.html) .

Please arrive by 8:45am to be signed in. Testing will begin shortly thereafter.

Directions: From Hwy 101, take Highway 12 East to Farmers Lane. Turn right onto Farmers Lane and then left onto Bennett Valley Road. Stay on Bennett Valley Road approximately 4.1 miles and turn right onto Grange Road. Bennett Valley Grange Hall is 0.5 miles from Bennett Valley Road on the right.

Candidates should bring the following:

- One (1) photo ID or two (2) non-photo ID
- FCC Registration Number (FRN, if you have one) or Social Security Number (if you do not have an FRN) if you have had any FCC license assigned to you, amateur or otherwise, or had any prior business with the FCC, you probably have an FRN.
- Original and photocopy of your current amateur radio license (if licensed)
- Original and photocopy of any valid CSEs (if applicable)
- #2 Pencil and eraser
- \$15.00 exam fee. Checks may be made payable to "ARRL-VEC"

Calculators may be used, but it must be demonstrated that all memories and programs have been erased. The calculator function in a cell phone or PDA may not be used! If you have any special needs, please contact Brian Torr, N6IIY in advance.

Good Luck!

Brian Torr, N6IIY
n6iiy@arrl.net
(707) 575-5871



REGULAR MEETING MINUTES, SEPTEMBER 2, 2015

President Pat Coyle called the meeting to order at 7:04 pm with all officers present.

New Members and guests were introduced: Carol KK6OLL; Peter KG6JSI; Mark; Ray KB6FQ; Tony KK6WOA; Peter KG6JSI; Guests: Bill KI6DOO; Bill KI6NKF.

PROGRAM ~ 7:05 - 7:58 Mike von der Porten ~ County Radio. Speakers Matt KJ6LJI, AECS, City of Santa Rosa; Bill KI7DOO and Bill KI7NKF, Neighborhood Ham Watch, Petaluma; Dan WA6CRB, ACS spoke on the history and growth of these three organization that serve Sonoma County with Emergency Radio Service.

BREAK: 8pm – 8:20pm

BUSINESS MEETING

John KE5RI, moved to accept the minutes as published. Cornell WA6HMN seconded, motion carried.

ANNOUNCEMENTS, NEW CALLS AND UP-GRADES, LIES AND BRAGS

- Joe, 10 meter from, Huntsville, Alabama; Trucker from No. Idaho checked in.
- Mini DX article. Charlie made 28, grand total of 56.
- Former member donated antenna to the club. Dwayne N6DNR. Butternut HVF6. HF antenna 80 – 6 meter. 25' high. This item was put up for auction and SOLD to Terry K6TER for \$110.

OFFICERS REPORTS:

~ Treasurer: 145 members. Check from Tour d'Organics for \$400 for SCRA support. New members are getting booklets.

~ Directors: None

COMMITTEE REPORTS:

~ Events: Darryl KE6MSP; USS Hornet tour – 8 members so far have signed, need 12 more. PCAM - Need to be escorted on and off the air field. One truck with all equipment will be allowed.

~ Volunteer Examiner: Dave W6IBC; next session administering all levels. More info under Event on Website

~ Public Service – Craig K6XLT; Waves to Wine needs rest stop coverage. Conflict with PCAM Sept 26 & 27. If you are working one day at PCAM consider working

Waves to Wine the alternate day. Oct 3, Gran Fondo. Cross Country, needs help. Contact Craig.
~ Shortskip – articles are slowing down. Need help. Any kind of technical articles would be great. Email to shortskepeditor@gmail.com. Dave W6IBC will write something for next month.
UNFINISHED BUSINESS - NONE
NEW BUSINESS - NONE
TECHNICAL Q & A's - NONE
NET CONTROL:

September 8

= Joe K6AWA

September 15

= Matt KJ6LJI

September 22

= Brian N6IYY

September 29

= Cornell WA6HMN

October 6

= Charlie KZ6T

Agenda having been exhausted, meeting adjourned at 8:50 p.m.

Respectfully submitted,
Iola KK6HRE, Secretary

**10 Meter Net**

There will be a net on 10 meters hosted by Joe K6AWA at 8:00pm following the regular SCRA net Tuesday nights. Set your dial to 28,400 USB.

SCRA BOARD OF DIRECTORS MEETING MINUTES

September 9, 2015

- 1) Call to order 18:10 (Quorum)
 - a) Board Members present:
 - i) Pat KG6JSL, Brian N6IIY, Jeff KI6PBF, Charlie KZ6T, Joe K6AWA
 - b) Club Members present:
 - i) Shelley KK6JXM, Darryl KI6MSP, Dave W6IBC, Craig K6XLT, Jim KI6REK, Doug KF6LMB
 - c) Previous meeting minutes approval
 - i) Motion by Brian, 2nd by Jeff, all approved, motion carried.
- 2) Officer and Director Reports
 - a) None
- 3) Committee Reports and business
 - a) Activities,
 - i) 14 signups for USS Hornet tour. There will not be a catered lunch. There may be a picnic in a park next to the Hornet with a deli lunch organized by Iola. Darryl believed Iola will pay and ask for reimbursement. Darryl believes \$60 docent fee is paid by the Club. Further details are to be worked out by Darryl as Chairman.
 - b) Education:
 - i) Dave reports that for the November Tech class there are 16 prospects interested, 5 have confirmed. Dave has order 12 more books.
- 4) Old Business
 - a) Public Service Obligations
 - i) Discussion originating with Jim:
 - (1) He thought we should look at what we were doing because we are headed past what SCRA is in business for. SAG'ing can be a dangerous job.
 - (2) Policy on Website
 - (a) Craig gave history. General nature was that HAMS were put in with SAG drivers. He wears two hats: bike club and PS wrangler.
 - (b) Pat asked why should the Club not provide SAG drivers?
 - (i) Craig gave example of lost bike at TT.
 - (ii) Shelley gave unsafe experience during TdO.
 - ii) Question asked by Pat
 - (1) Does the BoD wish to hire an insurance

coverage expert to review the policy of what is covered or not? Answer: No

iii) Brian endorses the idea of signing up on two sites. Radio with SCRA, and SAG with the event organizer.

iv) Motion by Charlie, 2nd by Brian reads as follows:

(1) The policy of the Club is to provide licensed radio operators at Public Service events.

(2) Amendment by Joe to add the word "only" 2nd by Jeff. Motion reads as follows:

(a) The policy of the Club is to provide licensed radio operators only at Public Service events.

(i) All in favor, amendment passed.

(b) 2nd amended by Joe, 2nd by Jeff to change the location of the word "only". Motion reads as follows:

(i) The policy of the Club is to only provide licensed radio operators at Public Service events.

(ii) All in favor, amendment passed.

(c) To the question of the original motion which now reads as follows:

(i) The policy of the Club is to only provide licensed radio operators at Public Service events.

(ii) All in favor. motion passed.

v) Jim also asked: Are we over extending ourselves at Public Service Events?

(1) No further discussion. No action taken.

5) New Business

a) Nominating Committee

i) Mike, Pat, Charlie, and Jeff are termed out.

ii) Joe will run again as Director.

iii) Bylaws require a nominating committee.

(1) Committee formed as follows:

(a) Dave will be Chairperson

(b) Doug

(c) Shelley

(d) Joe

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...Board Meeting Minutes continued from page 7

b) Member of the Year Committee

i) Motion to form a Member Of The Year committee

(1) Motion made by Charlie, 2nd by Jeff. All approved, motion passed.

c) Question by Pat voicing concern of issue mentioned in earlier discussion on whether Darryl's secondary activities (Example: Stem Program) have been authorized and sanctioned by the Board as SCRA events.

i) Brief discussion, no action taken.

6) Adjourn 19:48

Submitted by Charlie KZ6T

PACIFICON

Pacificon, the ARRL west coast ham convention, October 16-18, Ramon Marriot, San Ramon. Seminars, forums, swap meet, vendors, etc, etc. Always a great event. Our own Darryl, KI6MSP, will speak on the STEM program. Their site is <https://sites.google.com/a/mdarc.org/pacificon2015/home>, or check the SCRA website under Activities for registration.

“Upgrading” my G5RV Multiband Antenna

By Dave Harrison W6IBC

Several years ago I purchased a G5RV antenna from HRO and installed it above my roof. The central connector was elevated by a section of electrical conduit mounted vertically to the side of the gas-log vent on the roof. As installed, the main section of the antenna extended horizontally for 51 feet from each side of the central connector and support mast, achieving an overall length of 102 feet. The antenna was about 30 feet above ground. An impedance matching section of 300 ohm line sloped down along the sloping roof line from the central mounting point for about 28.5 feet to a location near the edge of the roof where it was directly connected to a length of RG8X coaxial cable. That cable led down the side wall of the house, under the house through a foundation vent, and then up into my ham shack through a small hole in the floor. As designed by Louis Varney G5RV (SK), the G5RV an-

tenna is supposed to be resonant on 20 meters, but not on all other high frequency ham bands.

While people swear by this antenna, there are issues that must be addressed. First, inventor Varney specified that the balanced impedance matching section had to extend vertically downward from the central connector, a condition not to be met at my particular location.

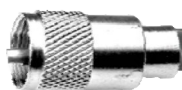
Next, the ARRL Antenna Book (page 10-6, 22nd Ed) , states:

“Although some amateurs claim (the antenna) may be fed directly with 50 ohm coax on several amateur bands with a low SWR, Varney himself recommended the use of an antenna tuner on bands other than 14 MHz. In fact, an analysis of the G5RV feed point impedance shows that there is no length of balanced line of any characteristic impedance that will transform the terminal impedance to the 50 to 75 ohm range on all bands. (Low SWR with coax feed and no matching network on ands other than 14 MHz may indicate excessive losses in the coax).”

Having read that passage, I put my antenna analyzer on the end of my G5RV coax in the shack. As measured at the transmitter end, my G5RV antenna system was not resonant in any high frequency ham band, and importantly it was not even resonant at 20 meters. This measurement convinced me that the twin lead matching section was not matching the 102 foot horizontal part to the 50 ohm coax! Thus, the coax section must be acting as a giant attenuator, soaking up lots of my RF energy and converting it into heat rather than sending it out as RF transmission energy. This fact would explain my less than satisfactory experience with the G5RV at my particular home location.

We know from the familiar “468 who do we appreciate” formula that relates radio frequency in Megahertz to antenna half wave length in feet (468 divided by dipole length in feet equals Megahertz), that a half wave dipole of 102 feet in length is nominally resonant at 4.588 MHz, which is not a frequency lying in any ham band. Thus, the feedpoint impedance of this dipole will not match a 50 ohm transmission line

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in any available high frequency ham band. So, why use 102 feet? First, it fits my lot just fine and it was already in place above my roof. Second, 102 feet lies between $\frac{1}{2}$ and $\frac{3}{4}$ wavelength on 160 meters (balanced line tied together and tuned against a ground counterpoise) and 80 meters (balanced line tuned as transmission line). Third, according to the ARRL Antenna Book, "An antenna can be considerably shorter than $\frac{1}{2}$ wavelength, even as short as $\frac{1}{4}$ wavelength, and still be a very efficient radiator" (Id., Page 10.3) The Antenna Book recommends using balanced open wire or ladder line in an impedance range of 300 to 600 ohms for power levels up to about 500 watts.

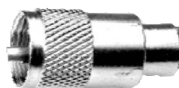


I then constructed a special plastic insulator and attached it to an eye screw, as seen in the photo below.

This plastic insulator assembly was screwed into a rafter at the edge of the roof before I inserted the ladder line. I then cut a slightly oversized horizontal slot into the side of the house to gain access to the attic. Another rectangular piece of plastic was provided with a narrow guide slot. This additional plastic piece was attached to the sidewall with small screws and the ladder line was then run through the plastic guide to hold the balanced line away from the edges of the wall panel slot, and to provide some degree of weather-proofing for the attic crawl space.

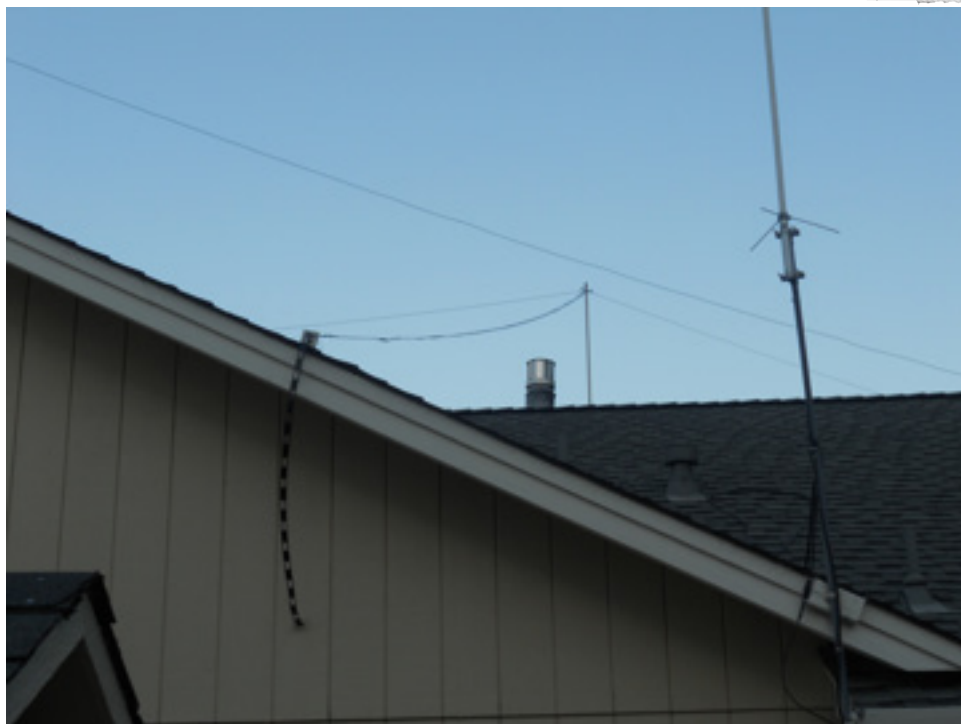


Continued on page 10...



...Upgrade continued from page 9

Finally, I cut a narrow slit to receive the inch-wide ladder line in the drywall ceiling of my ham shack. At the end, the 450 ohm ladder line is directly connected to the balanced feedline input of my MFJ 969 Deluxe Versa Tuner II antenna tuner, as shown below.



Not only does this arrangement work much better for me than did the G5RV, it brings back for me the actual nostalgia of times past when hams actually had to “tune up”. While some might reasonably assert that my modification is not an “upgrade”, the modified antenna system works so much better for me than the original G5RV arrangement! The point is that every antenna installation must be tailored to the particular environmental conditions present in order to work effectively. Experimentation and measurements are required to check out any antenna system, and remedy detected deficiencies.



CLUB ACTIVITIES UPDATE

Here is an update on club activities:

On September 19th SCRA did a tour of the USS Hornet. Some of us carpooled, we met everyone at the dock. We had deli sandwiches and did a picnic on the fantail (rear of the ship).

Next we toured the flight deck. [The Hornet](#) was built before WWII, therefore the flight deck is made of wood. I was surprised about that. The length of the flight deck is a little over 900'. It has three elevators for moving aircraft around. We toured other areas: Captains quarters, crew quarters, crew and Chief Warrant officer galleys. Also the engine room, generators. Unfortunately we didn't get to see, or operate in the radio room.

The USS Hornet was the recovery ship for the [Apollo Lunar Missions](#).

Here are other links for various photos on the Hornet:

Each is labeled

[The ship](#)

For those who want the ships [statistics](#)

Ships [history](#)

The crew:

Darryl KI6MSP

Iola KK6HRE

Doug KF6LMB and wife

Dave W6IBC

Joy KI6ASJ

Kathy KK6KGW

Pat KB6KSA and grandsons

Jim KI6REK

Joe K6AWA

Cornell WA6HMN

Henry KI6VKL



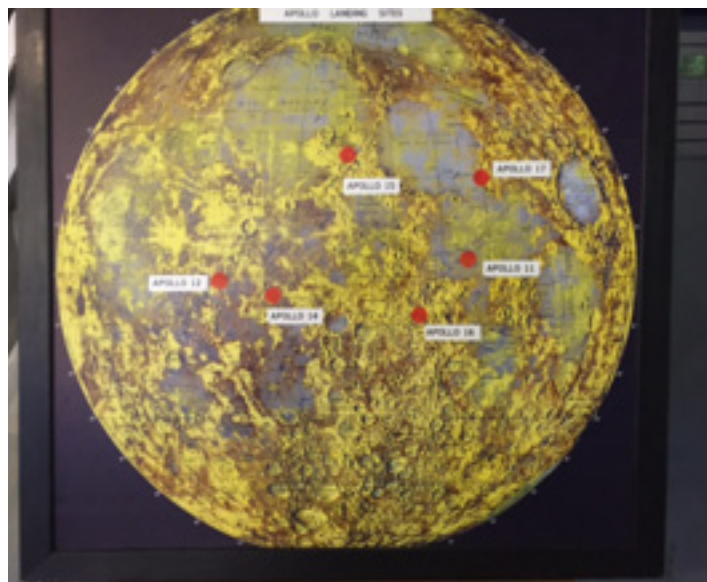
Left to right: Joe Fortuna, Joy and Dave Harrison, Cornell, Jim Draeger, Brian Torr, Iola Beckley, Karin Miller, Kathy Wells, in back: John Felton Darryl, Scott Miller. In Front: Preston and Elljay with granddad, Pat
Missing: Arlen & Henry, Cynthia and Doug Payne.



USS HORNET TRIP PHOTOS



Apollo Quarantine Trailer



APOLLO MAP



Apollo Capsule Interior

Next UP:

The Wings Over Wine Country Air Show

The air show was alot smaller this year. The highlight was the Canadian Forces Snow Birds. Their performance was way beyond awesome. They did starburst, flying as one plane formations.

I want to thank:

Iola KK6HRE

Brian N6IYY

Steve KK6VMZ

Jeff KI6PBF

Joe K6AWA

Cornell WA6HMN

Henry KI6VKL

Arlen KK6UIS

for working the air show. There was alot of interest in amateur radio, both days. There were seven people who signed up for the technician class.

Saturday was the Club booth at the Gran Fondo bike ride. The booth was located at the Finley Center. We provide the people who are there to listen to the radio traffic of the event; also talk with people about amateur radio and invite them to signup for the technician class.

Finally on October 24th is the Bay Area Science Festival.

This will be at the County Fairgrounds. The time is from 10:00-16:00.

This is a free event. There are a few slots open to work this fun event.

The focus of this science festival is STEM.

73

Darryl

KI6MSP

Darryl M Paule

KI6MSP

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ID-880H

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YAesu
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Mike, AD6YB, has set up archives for past and present issues of Short Skip. They are available on the Web site, log into Members Area, Short Skip, click on the first sentence. Mike has scanned in the old paper issues and it is really interesting to browse through them to see what those guys were doing. There are historical photos as well. An important record of our history and ham radio in general. Good Stuff.

[\(Click Me\)](#)

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Contact the editor, dave@kraybill.org, or for general questions and /or suggestions, k6son@arrl.net

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