

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>

Repeaters:

English Hill: 147.315+ 88.5 / 224.180+ 88.5 /
441.375+ 88.5

Castle Rock: 147.315+ 156.7



REPEATER STATION
W6SON

Volume 39, Number 3

March 2014



March SCRA Update

by Pat Coyle, KG6JSL
SCRA President

The year has gotten off to a good start and good things are happening.

Our Webmaster, Sutter, KI6ZON, has redesigned the Club webpage at <http://sonomacountyradioamateurs.com>. Note that a "Members Area" as been added and the features there can only be accessed by Club members. You have to create an account with User Name and password. Sutter requests that you use your call sign as your User Name to make it quicker to verify that only members have applied for access. This is a security feature as well providing a "members only" benefit for your membership in the Club.

We have also established a Mentoring program intended to make available to all members the knowledge, skill, experience and expertise of our members. This is in the Members Area of the Website and is available only to members. There is a separate article in this issue that explains the program.

Another part of the Mentoring Program, and a further service to members, is the Forum section of the Members Area of the Website. Charlie, KZ6T, has moved the old Google forum to the Members Area and this is the ideal place to ask questions under the Technical section about anything Club or radio related and get a forum started where everyone can contribute. The Forum section also has a News and Announcements

section as well as Public Service and Activities sections where you can keep current on what is going on with the Club. Add the Forum to your daily browsing and this will be a success.

But hey, that's not all. The Education Committee, under Chairman Jeff, KI6PBF, with Darryl, KI6MSP, and John, WB6FRZ, conducted a Technician licensing class for Red Cross personnel on February 7-9. Eleven of 12 students passed the test administered by Volunteer Examiner Brian, N6IIY. One student, a nuclear physicist from Napa, continued taking exams and walked out with his Extra ticket, while his young son got his General license. The next Technician Class will be the weekend of March 7-9 at the Bennett Valley Grange. Direct anyone interested to Jeff, KI6PBF, jeff.tonelli@gmx.com for information.

We also want to confirm our membership records. Please go to the Website Home page <http://sonomacountyradioamateurs.com> and on the right side is a link to paid members. Check to see if you are on it. If you have paid but are not listed, contact Mike on his link there. If you have not paid, go to the Membership section and pay.

This month's meeting program will continue the Introduction to High Frequency (Part II), with Charlie, KZ6T, on digital modes, Brian, N6IIY, on antennas, and Pat, KG6JSL, on assembling a basic HF station.

So come to the meeting, learn a little, chat with friends, and enjoy Bob's, NA6NIV, refreshments.

Pat, KG6JSL



2014 Club Officers

President	Patrick Coyle coylaw@sonic.net	KG6JSL
Vice President	John Felton	KE5RI
Treasurer	Mike Von der Porten	AD6YB
Secretary	Dave Harrison	W6IBC
Director	Doug Payne Jeff Tonelli	KF6LMB KI6PBF
Past President	Charlie Sikes	KZ6T

Committee Lineup/Contacts

Activities	Darryl Paule, KI6MSP	ki6msp@arrl.net
ARES Liaison	Charlie Sikes, KZ6T	kz6t@arrl.net
DX/Contest	Kevin Alt, K6BSG	kalt@ieee.org
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Emergency Services	Charlie Sikes, KZ6T	kz6t@arrl.net
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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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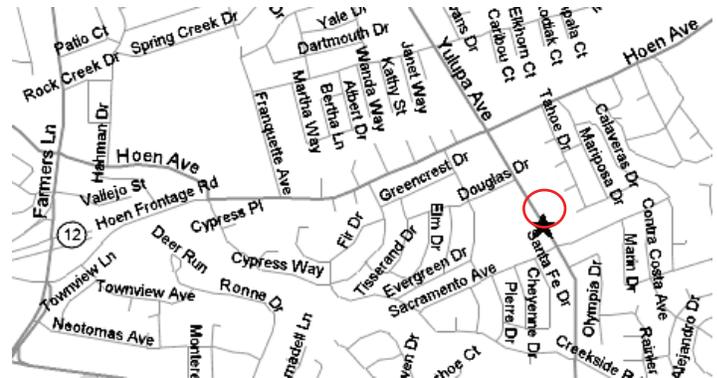


SCRA Club Meetings

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 Star Restaurant,

1350 Farmers Lane, 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 this Web site:

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

Contest Corner

Hello testers. The long winter is almost over and it's time to dust off that HF antenna for the spring. Check out the CQ WPX Phone contest the last weekend of the month. Happy DX'ing!

1 Mar - **Open Ukraine RTTY Championship** - Digital, 160-10 meters. See: uarl.com.ua/openrtty.

1-2 Mar - **ARRL Int'l Phone DX Contest** - SSB, 160-10 meters. See: www.arrl.org/contests.

2 Mar - **OK1WC Memorial Contest** - SSB/CW, 80-40 meters. See: www.memorial-ok1wc.cz.

4 Mar - **ARS Spartan Sprint** - CW, 80-10 meters. See: www.arsqrp.blogspot.com.

4 Mar - **YL CW Party** - CW, 80 meters. See: www.agcw.de.

5 Mar - **John Rollins Memorial DX Contest** - CW, 40-20 meters. See: www.antiquewireless.org.

7 Mar - **NS Weekly Sprint** - CW, 160-20 meters. See: www.ncccsprint.com.

8 Mar - **AGCW QRP Contest** - CW, 80-10 meters. See: www.agcw.de.

8 Mar - **QRP ARCI HF Grid Square Sprint** - CW, 80-10 meters. See: www.qrparci.org/contests.

8-9 Mar - **Worldwide EME Contest** - Phone/CW, 2.3 GHz. See: www.dubus.org.

8-9 Mar - **RSGB Commonwealth Contest** - CW, 80-10 meters. See: www.rsgbcc.org.

8-9 Mar - **Straight Key Weekend Sprintathon** - CW, 160-6 meters. See: www.skccgroup.com.

8-9 Mar - **EA PSK63 Contest** - Digital, 80-10 meters. See: www.ure.es.

8-9 Mar - **Idaho QSO Party** - All modes, 80-10 meters. See: www.idahoarrl.info/qsoparty.

9 Mar - **North American RTTY Sprint** - Digital, 80-20 meters. See: www.ncjweb.com.

9-10 Mar - **Wisconsin QSO Party** - All modes, All bands. See: www.warac.org.

12 Mar - **CWops Monthly Mini-CW Test**, CW, 160-10 meters. See: www.cwops.org/onair.html.

15 Mar - **Feld-Hell Leprechaun Sprint** - Digital, 160-6 meters. See: www.feldhellclub.org.

15 Mar - **Virginia QSO Party** - All modes, 160-0.7 meters. See: www.sql.net/sterling.

15-16 Mar - **Russian DX Contest** - SSB/CW, 160-10 meters. See: www.rdx.org.

15-17 Mar - **BARTG HF RTTY Contest** - Digital, 80-10 meters. See: www.bartg.org.uk.

16 Mar - **North American Sprint** - SSB, 80-20 meters. See: www.ncjweb.com.

17 Mar - **Run For the Bacon** - CW, 160-10 meters. See: www.fpqr.org.

18 Mar - **CLARA and Family HF Contest** - SSB/CW, 80-10 meters. See: www.clarayl.ca.

20 Mar - **NAQCC Monthly QRP Sprint** - CW, 80-20 meters. See: naqcc.info.

22 Mar - **FOC QSO Party** - CW, All bands. See: www.g4foc.org.

22 Mar - **Oklahoma QSO Party** - All modes, 80-6 meters. See: www.k5cm.com/okqp.htm.

22 Mar - **QCWA Spring QSO Party** - All modes, all bands. See: www.qcwa.org/qsoparty.htm.

22-23 Mar - **Louisiana QSO Party** - All modes, 160-0.7 meters. See: laqp.org.

29-30 Mar - **CQ WPX SSB Contest** - SSB, 160-10 meters. See: www.cqwp.com.

29-30 Mar - **Feld-Hell Worked all Americas Full Day** - All modes, 160-10 meters. See: www.feldhellclub.org.



SCRA Membership Meeting February 5, 2014

Meeting called to order at 7:03 PM by President Pat KG6JSL. Quorum present. Officers and directors introduced.

Program: Introduction to High Frequency Radio by multiple presenters. Dave W6IBC made an initial presentation about HF wave propagation. John KE5RI explained AM and SSB voice modes, and discussed various nets on HF. John WB6FRZ explained the CW mode used on high frequency and explained its advantages, and reminded members he is conducting a weekly code class. Ed W1EJ explained and displayed his portable CW Low power (QRP) station contained in a small plastic suitcase. Frank NQ6E showed his Yaesu FT817 QRP radio and other low power station accessories.

At 7:55 PM President Pat decided that the other scheduled presentations would be deferred until a future meeting. A 15 minute break ensued.

Business Meeting. January 2014 minutes were corrected to show Frank NQ6E as Net Control on January 28th, not Fred AE6SF, and then approved upon motion by Steve KI6TUR, second by Darryl KI6MSP.

During a member comment period, Dennis KI6REO complained about a ham on 10 meters who transmitted continually, hours at a time, on a well known calling frequency, and wondered if it was "legal".

David KI6UGB reported that the Boy Scouts have added Morse Code back into their signaling merit badge program.

Treasurer Mike AD6YB presented the board-approved 2014 budget. Following discussion the budget was adopted upon motion by Wells KK6EXC, seconded by Dennis KI6REO. Mike also reminded members that dues for 2014 are now past due and urged members to pay before February 28th, cutoff date for the next club roster.

Past President Charlie KZ6T explained that the Google reflector group will be ended in favor of a forum capability being added to the club web site. He also discussed the new club-sponsored Swap Net on the fourth

Wednesday of the month on the SCRA VHF repeater, and requested feedback from members. Charlie also said that because of newly assumed club duties, he wouldn't be able to handle the group build project, and was looking for a volunteer to manage the group build.

Activities Chair Darryl KI6MSP reported upon the Family Life Magazine "I learn" fair that he and other SCRA members attended: a successful outing at which five people signed up for the club's technician class. The North Bay Science Festival is now set for November 1st. Darryl also reported that new member Deb KK6HRD and Darryl are attempting to establish a student ham club at the Santa Rosa Middle School, and will start out with a crystal radio construction project.

Education Chair Jeff KI6BPF reported that the next technician class will be for 20 Red Cross volunteers on Feb 7-9, 2014. The next open class will be sometime in March. A need still remains for general and extra class instructor volunteers. Jeff can be reached at jeff.tonelli@gmx.com.

Emergency Services Chair Charlie KZ6T said that Santa Rosa COPE, led by our member Iola KK6HRE, wanted to contact SCRA members living in Santa Rosa to enlist their aid in case of an emergency. After a discussion, the membership consensus is that a sign-up sheet should be provided to solicit participation in and support of COPE. Iola reported that Santa Rosa COPE is in the process of getting new people trained and licensed as hams. Charlie reported that the January ACS/ARES/COPE/ Red Cross/ Salvation Army training session was very successful with 68 hams in attendance. The next ACS/ARES joint training session will be held on March 29th

Media: Pat asked members for opinion on whether to publish Short Skip with one wide column or two columns as has been done. Majority vote preferred two columns.

Membership Chair Charles W6CLC reported that new member packets had been sent out to six new members.

Continued on next page.

Membership Meeting Minutes, continued

Merchandise Chair Iola KK6HRE proposed a ladies' style tee shirt and also sought input regarding a club sweatshirt purchase. She will obtain sweatshirt samples for evaluation.

Public Service Chair Craig K6XLT reports events start in April.

Repeater Chair Jack K6ROW has been working on the voting receiver project. Charlie KZ6T has taken over IRLP from Dave W6IBC and explained a problem with the ancient computer supporting IRLP. He proposed obtaining an embedded node computer for about \$800. Membership vote authorized up to \$900 for a new embedded node computer upon motion by Steve KI6TUR, second by Dennis KI6REO.

VE Liaison Brian N6IIY reported a big examination session this Sunday Feb 9th. He plans the next open exam session for May 17th, probably at the Bennett Valley Grange.

No Old Business. In New Business, Charlie KZ6T sought comments about the swap net. Darryl KI6MSP proposed twice per month, but Charlie wondered if there would be enough listings to warrant it. Interested hams should email Charlie their listings, or list on the swap net directly.

Net Control Feb 11: Craig K6XLT; Feb 18 Darryl IKI6MSP; 2/25 Dennis KI6REO; 3/4 Mike AD6YB.

Following the raffle, meeting was adjourned at 9:15 PM.

Respectfully submitted,
Dave Harrison W6IBC, Secretary



Cut out for your VIP Discount Card

The New Mentoring Program-How To Use It

Charlie, KZ6T, and Sutter, KI6ZON, have established a Mentor page under the Members Area on the Website. Check in, and you will find a listing of categories of areas for which you may have questions, have a problem, need some assistance or just want to talk to someone about. Each category will (soon) have a Mentor listed with his or her email address. Simply contact the Mentor with your problem. If your issue does not fall into one of the categories, contact Jeff, KI6PBF, or John, WB6FRZ, at the addresses provided and they will direct you to someone who can help.

Also as part of the mentoring program is the Forum section under the Members Area of the Website. It contains a section for Technical Questions and Answers. Put in your issue, question or problem and let the entire club chip in with thoughts and comments.

But this program will not work unless we have Mentors. Every member of the Club has something to offer and should sign up as a Mentor in some capacity. You do not need to be an "expert" to be a Mentor. Your common sense and knowledge, and a desire to help other members is all that is needed. To become a Mentor email Charlie, KZ6T, charliesikes@me.com and he will put you on the list. And if your skill set is not listed, or you have ideas for improvement, tell Charlie and he will add that to the list. Everyone should be a Mentor and you can expect me to start hectoring all of you to join the program.

This is a great program that will make the vast pool of knowledge possessed by Club members available to other members and all are urged to participate by seeking help when you need it, and by offering help to others.

March Meeting Program

Introduction to High Frequency Radio(Part II) Designed to get you onto the HF bands. This month:

- Digital HF(PSK 31 and more): Charlie, KZ6T
- Antennas: Brian, N6IIY
- Assembling a Basic Station: Pat KG6JSL



California Historical Radio Society: Vintage Radio Museum & Radio Hall Of Fame Seek Funding For Permanent Home

Help Chrs Purchase 'Radio Central' In Alameda

The California Historical Radio Society, (CHRS), has created and operated a unique West Coast Educational Center and Museum for Radio and Radio History at the old KRE radio station building in Berkeley, CA for the last 10 years. The new owners of this property have asked CHRS to vacate. CHRS has identified a new home and is currently in escrow for the purchase of 2152 Central Avenue in historic Alameda, CA. This vintage building will become the permanent home for our New Educational Center devoted to Radio and broadcasting history for generations to come.

CHRS has been fundraising to purchase this new building. We are seeking a total of \$1.15 million. We have already raised over \$700,000! We have an additional \$450,000 to raise in a very short time.

CHRS realizes the importance of a permanent location. The tireless efforts of dedicated volunteers transformed a derelict building into a showplace, housing displays including the Bay Area Radio Hall of Fame and a World Class vintage radio collection. We are seeking public and private donations to complete our fund raising for the building purchase and to begin improvements on the New CHRS 'Radio Central'.

About CHRS - The California Historical Radio Society (CHRS), is a 501(c)(3) educational non-profit organization, chartered by the State of California in 1974 to promote the research, restoration, preservation and presentation of early radio and broadcasting. CHRS is one of a kind. No other organization embraces the many aspects of radio.

The CHRS Bay Area Radio Hall Of Fame, (BARHOF), is the only radio hall of fame in the Western U.S. We feature the personalities that make Bay Area Radio special and a part of so many lives. From Ken Ackerman to Stan Bunger... from Don Sherwood to Dr. Don Rose... Carter B. Smith to James Gabbert, BARHOF presents the personalities that define Bay Area Radio. We see Radio as transformational to 20th century soci-

ety and culture as the Internet has been to the 21st, and we are passionate to tell its story.

CHRS' facilities, programs and activities include:

- Bay Area Radio Hall of Fame
- James Maxwell Communications Library
- CHRS Radioana Archive
- Archives of the Society of Wireless Pioneers
- CHRS book publishing and Journals
- Radio history and restoration classes & clinics
- CHRS Vintage Radio and Broadcasting Museum
- Bay Area Radio Museum – Online
- Russ Dillberg Radio & TV Repair Shop
- Electrical Transcription Project
- Vintage audio transfer service
- Living History Video Project
- Vintage radio collectors events
- Working 1950's radio studio
- Carter B. Smith Memorial radio control room
- Amateur station W6CF – The Jim Maxwell Memorial Station
- RADIO DAY BY THE BAY - Annual fund raising day - Live music, auction, live radio play

The CHRS Vintage Radio Museum, Maxwell Library and Archives of the Society Of Wireless Pioneers are second to none, with artifacts and volumes dating back to the late 1800s. Amateur station W6CF, history & repair classes, radio & TV repair shop, vintage audio transfer service, Living History Video Project & CHRS publishing are only some of our programs. We realize how much radio is a part of our lives in the SF Bay Area and are dedicated in our efforts to preserve its' history.

Again... Our needs are urgent! Escrow closes April 14, 2014 and we must be fully funded by then. More information can be found at: www.CaliforniaHistoricalRadio.com or Google: CHRS.



Sonoma County Radio Amateurs Board of Directors Meeting

February 12, 2014

Minutes

Meeting called to order by President Pat KG6JSL at 6:05 PM. Board Members in attendance included President Pat KG6JSL, Vice President John KE5RI, Secretary Dave W6IBC, Treasurer Mike AD6YB, Director Doug KF6LMB, Director Jeff KI6PBF and Past President Charlie KZ6T. Other members attending included Brian N6IYY, Jack K6ROW, John WB6FRZ, Darryl KI6MSP, and Jim KI6REK

Minutes. On motion by Charlie KZ6T, seconded by Doug KF6LMB, the January 2014 Board minutes were approved.

Treasurer Mike AD6YB reported one government report is prepared, with two others awaiting preparation. Club has received a check from HRO for Short Skip advertising.

Activities Chair Darryl KI6MSP is considering a club field trip to the USS Hornet in Alameda. He continues to work with Deb KK6HRD at Santa Rosa Middle School concerning formation of a student ham club. Dennis KI6REO will also help. After club is formed, SCRA will consider providing some financial aid. North Bay Science Fair is now set for November 1st.

Media. Pat plans to contact Kevin Alt K6BSG concerning the Contest Corner in Short Skip. Website logon is challenging some members, while others have been successful.

Education Chair Jeff KI6BPF reported the Red Cross technician class held Feb 7-9 was very successful with 11 out of 12 students receiving ham licenses. Jeff will be coordinating new member classes with Charles W6CLC membership chair. Mentoring program needs to be better organized. Charlie KZ6T will establish a data base and will request mentor sign ups. Jeff KI6BPF and John WB6FRZ will act as coordinators to see that work load is balanced among mentors and that all requests are assigned to a mentor. The Antenna satellite tracker build project will be a small group including Ned KI6REQ, Dennis KI6REO, and Jeff KI6BPF and possibly several others. John KE5RI requested that the Club notify ARRL of local success with ham classes

and licensing of new hams. KZ6T reminded the board that SCRA offers a membership scholarship to new hams who have taken the SCRA technician course and are under age 18 years.

Emergency Services. Chair Charlie KZ6T reported that meetings continue with interested parties and groups in an effort to figure out how all of the local EM-COMM resources fit together and cooperate in event of an emergency. A SET is scheduled for March 29th.

Field Day. Chair Brian N6IYY is waiting on Santa Rosa to confirm reservation at Youth Park for 2014.

Merchandise: Charlie KZ6T is proposing a group purchase of ARRL message pads.

Programs: Board decided that the High Frequency program would be completed at the Feb. membership meeting, including presentations by Charlie KZ6T, Brian N6IYY and Pat KG6JSL.

Public Service: Pat KG6JSL asked about public service radio training.

Repeater: Chair Jack K6ROW reported that IRLP is not presently active. A new IRLP computer is ready and needs to be paid for. The 2 meter Voter equipment is in place and ready for checkout. There is a receive sensitivity problem with the Castle Rock repeater. KE5RI and K6ROW will check it out. Repeater committee will meet on Feb 26th. SCRA should consider other resources such as ACS before investing in any other repeater site.

Volunteer Examiners. Liaison Brian N6IYY has met with SMRS to compare VE practices. There is a new procedure for registering VE sessions with ARRL. Candidates can obtain FRN in lieu of SSAN from FCC ahead of testing.

Club Picnic. Jim KI6REK reported a proposed date of Sept 13. Committee includes Jim, John KE5RI, Doug KF6LMB, Karen and Scott Miller. Jim estimates that 35 members and family will attend. A picnic budget of \$490 was approved upon motion by Mike AD6YB, seconded by Dave W6IBC. If more members plan to attend, a larger budget would have to be approved by the membership.

Continued on next page.



Board Meeting Minutes, continued.

Banking. On motion by Dave W6IBC, seconded by John KE5RI, a revised motion to change signatories at Exchange Bank was passed.

Miscellaneous.

The Directors at large, Doug KF6LMB and Jeff KI6BPF will share greeter duties at the monthly meetings. SCRA will no longer have sign in sheets at the meetings, and will not track who checked into the Tuesday Evening service net.

Charlie KZ6T will continue the swap net, and encourages all interested hams to list excess ham items with Charlie or on the website.

The Google Groups forum will be discontinued, and a new forum will be included as part of the website.

Darryl KI6MSP will be folding 200 new club brochures.

The club asset inventory needs to be completed.

With no further business, meeting was adjourned at 8:30 PM

Respectfully submitted,
Dave Harrison W6IBC
Secretary

Membership Notice

Since membership renewals come in many forms - cash, check, PayPal - and come in across many months (starting in October 2013 under the prior treasurer), we do our best to make sure they are recorded in the membership master list.

We have posted the call signs of paid-up members, as we have them, on the website.

Please check the website.

If you think you've paid and you are not listed, please contact Mike Von der Porten AD6YB at ad6yb@arrl.net.

Next VE Sessions

Saturday, March 15

Saturday, May 17

Our next VE exams are scheduled for Saturday, March 15 and Saturday, May 17, from 9am 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 CSCEs (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, N6IYY in advance.

Good Luck!

Brian Torr, N6IYY
n6iiy@arrl.net
(707) 575-5871





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• 100W HF, 6M, 2M • 50W 70CM • 10W 1.2GHz w/ opt UT-20 module • Built-in TNC, DX packet cluster • IF Stage DSP • Backlit front key panel



TM-281A 2 Mtr Mobile
• 65 Watt • 200 Memories • CTCSS/DCS • Mil-Std specs • Hi-quality audio



TS-590S HF + 6M Transceiver
• 100W HF + 6M • 500 Hz & 2.7 KHz roofing filter • Built-in auto tuner • Best dynamic range in class • 32 bit DSP

TH-F6A 2M/220/440

• Dual channel receive • .1 - 1300 MHz (cell blocked) RX • FM, AM, SSB • 5W 2M/220/440 TX, FM • 435 Memories • Li-Ion Battery



TM-V71A 2M/440 Dual Band
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ICOM

IC-7000 All Mode Transceiver
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ID-51A VHF/UHF Dual Band Transceiver
• 5/2.5/1.0/0.5/0.1W Output • RX: 0.52-1.71, 88-174, 380-479 MHz** • AM/FM/FM-N/WFM/DV • 1304 Alphanumeric Memory Chls • Integrated GPS • D-STAR Repeater Directory • IPX7 Submersible
D-STAR ready



IC-7600 All Mode Transceiver
• 100W HF/6M Transceiver, gen cov. receiver • Dual DSP 32 bit • Three roofing filters- 3, 6, 15kHz • 5.8 in WQVGA TFT display • Hi-res real time spectrum scope



IC-V8000 2M Mobile Transceiver
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ID-880H Analog + Digital Dual Bander D-STAR
• D-STAR DV mode operation • DR (D-STAR repeater) mode • Free software download • GPS A mode for easy D-PRS operation • One touch reply button (DV mode) • Wideband receiver
D-STAR ready



YAESU
The radio



FTDX-3000 100W HF + 6M Transceiver
• 100 Watt HF/6 Meters • Large and wide color LCD display • High Speed Spectrum Scope built-in • 32 bit high speed DSP /Down Conversion 1st IF



FT-7900R 2M/440 Mobile
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FT-450D 100W HF + 6M Transceiver
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**EMCOM column**

KZ6T

One of the challenges of Emergency Communications is to get everyone on the same page. Finding agreement standards for bands, frequencies, traffic handling methods is tough just to name a few. One relatively painless standard is to agree on a power cord system. If you are asked to activate an emergency shelter, or serve as a net control operator for one of our public service events, your mobile station should be able to plug right in to the existing power supply. The system that has almost universal accepted is to replace your manufacturer specific power cord with the Anderson Powerpole system. The following article explains the system in detail and has been reprinted with permission, September 2010 QST, copyright ARRL.

For more specific answers to your Powerpole questions, (Like how to go about installing them) please ask a SCRA Mentor. You can find one by logging into our website, hover over the Member Area Tab, then click on Mentors.

Anderson Powerpoles, tools and accessories are available at the Oakland Ham Radio Outlet or online from Powerwerx.com

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One Ham's DC Power Connector Preference

Mal explains why he has converted to Anderson Powerpoles for dc connectivity.

Mal Eiselman, NC4L

I love Anderson Powerpoles. You will too after reading this article. Why? Before I answer that, a short disclaimer: I am in no way related to nor do I have any financial interests in the Anderson Company.

As amateurs, we need reliable and low resistance connections for our 12 V equipment. Although there have been many connector types used for this function over the years, my strong preference is now for Anderson Powerpoles. I previously used Molex type connectors for this purpose and will describe here the reasons I decided to move to Powerpoles.

Powerpoles are Genderless

If you want to run your 12 V rig from a storage battery, in the Molex system you will have to choose a male or female connector housing for the battery supply cable and the opposite for the radio cable. Note that Molex male housings and male pins are different items — thus there can be four variations of housing and pin gender.

Usually and by convention you will need male connector housings (on the right in Figure 1) for the battery cable plug and female housings on the radio power cord connector. The reasoning there is that pins can short out if stray metal objects contact the exposed pins of the female housing.

In addition you may also want to power the radio from a power supply. Same conventional wisdom here — male housing on the power supply cable (with female pins) and female housing (with male pins) again on the radio cable. So far so good.

But what happens if you want to use that power supply to charge your battery? A male housing cannot connect to another male connector in the Molex system so you have to construct a two wire cable with female housings and male pins on each end called a gender converter. (See Figure 2.)

You will also probably find a need to have one for male to male and another for female to female housings. Extra gender converting

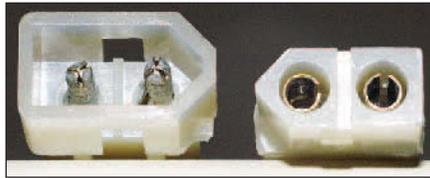


Figure 1 — Molex type connectors. On the right, female pins in a male housing; on the left, male pins in a female housing. The female pins in male housing should be used for supply side connections since they are less likely to short.



Figure 2 — Molex gender changer — typically used to connect two usual supplies as when charging a battery with a power supply.



Figure 3 — A pair of disconnected Powerpole connectors. Note that the two connectors are identical, but can be connected together — this is what we mean by genderless connections.

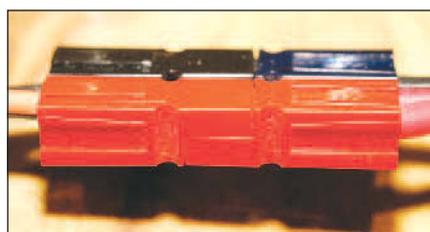


Figure 4 — The connectors from Figure 3 interconnected.

cables are inconvenient, time consuming, costly and add resistance to the circuit. And if you are anything like me, you can never find the converter when you need it. Now comes an unexpected emergency and time is wasted trying to find where you hid the gender adapter. All of this is avoided with genderless connections as everything fits everything else if Powerpoles are used as shown in Figures 3 and 4.

In addition you or your friend might not set up the Molex pins correctly. The proper way is to place the male pins in the female housing and vice versa. Some people place them differently, however. The way shown in Figure 1 is correct. If you look at the RadioShack Web site, and look for Molex connectors they show them wired with female pins in the female housing. None of this can happen with the Powerpole connectors.

That configuration makes a quick connection less likely as the wide metal flange of the female pin can get caught on the plastic male housing. But the real relevance is that when you bring your radio to ARRL Field Day you might find your Molex scheme won't connect to someone else's, not only because of housing incompatibility but due to pin incompatibility as well.

Powerpoles Handle Heavy Current Without Getting Hot

It's always important to use wires sized to radio manufacturers' specifications. As a test, I have run 30 A through #12 AWG wires and 30 A Powerpole pins for extended times with the Powerpoles becoming only minimally warm. Standard

Molex pin connectors are rated for 7 A and Tamiya connecting pins at 10 A, and they both get hot if operated at their rated current.

By the way, and let me emphasize this: Tamiya pins and not Molex pins are used in the six slot plugs on 12 V power connectors on some Amateur Radio transceivers. Be aware that female Molex pins are of slightly wider diameter than Tamiya pins, so using those on the plug end of power cords to

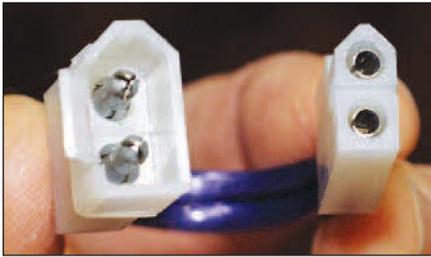


Figure 5 — Comparison of 20 A (on left) and 7 A Molex connectors. While appearing similar, they cannot be connected.

power a ham radio will cause intermittent loss of power as the fit is not tight. If you have replaced the factory Tamiya with Molex pins, reach around to the power connector while the radio is on and wiggle the plug. If you see a flickering of the display replace the pins with the correct Tamiya pins to avoid problems. Those are available at any hobby store and are inexpensive. The Molex pin connectors are routinely sold at hamfests as replacements or to make spare plugs. The substitution is not satisfactory in most cases.

Bright Colors Make Polarity Identification Easy

I love the colors of Powerpole connectors. The colors make it easy to identify the polarity of the wire from the connector housing, assuming it was set up properly when the connector was first made. It's easy — red always goes to red and black to black. (See Figure 3.) The physical size of the Powerpole connector is the same as the standard 7 A Molex connector but carries at least four times the current. They are also significantly



Figure 7 — End view of pin wire attachment mechanism of Powerpole (left) and Molex (right) connector pins. Note the additional thickness of the Powerpole connectors.



Figure 8 — Comparison of the three sizes of Powerpole pins (left) with the 20 and 7 A Molex pins. Note that all three sizes of Powerpole pins fit in the same size housing and that they can be interconnected.

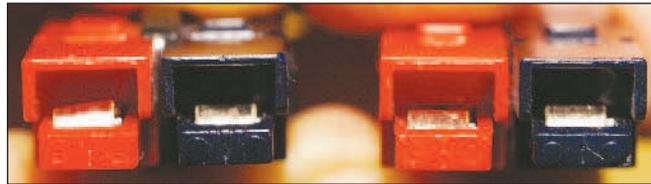


Figure 6 — Standard orientation of Powerpole connectors.

smaller than the 20 A Molex and still they handle about twice the current of those larger types. In addition, if you use large and smaller Molex connectors they will not match up with one another. That means that you not only need gender changers for both sizes but size adapters as well. That makes for a waste of time and funds in purchasing extra connectors and in making up the extra cables (see Figure 5).

All of that is not necessary in the Anderson system. I hope you are starting to see why I love Anderson Powerpoles.

Orientation

If you orient the connectors properly in relation to the wire with red (positive) on the left and black (negative) on the right looking into the ends of the connector with the metal contacts at the bottom — they cannot be connected improperly. That is the orientation that I have seen on several Internet sites and seems to be the conventional standard (see Figure 6).

Comparison of Contact Material

The materials and construction are much better for the Powerpole pins. Molex pins are thin gauge tin plated steel while the Powerpole connectors are twice as thick and are silver plated solid copper (see Figures 7 and 8).

If you look up the resistivity of metals you will find that silver and copper have much less resistance than tin or steel. The lower resistivity plus the extra thickness of the Powerpole pins is why they are able to carry higher current. They easily handle 30 A, and in fact even more depending on the wire gauge as heavier wire draws the heat away and acts like a heat sink. Some of the people at Anderson feel that the 30 A Anderson connectors can handle 40 A or more. I have done

exactly that and it will work but the connector does become unpleasantly hot.

Three Size Pins all Fit the Same Plastic Housings

Powerpole connectors that fit the regular size plastic housings used in 12 V amateur service come in three ratings. They are different only in the crimp or back part of the pin with the smallest rating at 15 A, the mid size at 30 A and the largest at 45 A ratings. Therefore they will mate perfectly with any of the other pin sizes. Externally you cannot see a difference when a Powerpole connector is hooked up. Figure 8 shows the relative sizes.

And in Closing

The cost of a Molex connector with two pins and housing is \$1.99 at RadioShack for either the 7 A or 20 A versions. Anderson Powerpoles are usually around a dollar for two of the 15, 30 or 45 A pins with one red and one black interlocking plug housings.

Note that if you are part of an EmComm group that has adopted a connector standard, it makes sense to use whatever connector series the group has adopted for any gear that might be deployed in an emergency. If your group doesn't have a standard, by all means help them decide to adopt one. Many groups have standardized on Powerpoles and I suggest you consider them for your group.

I have written this article because it was my prior incorrect opinion and assumption that these pretty little red and black connectors offered no advantages. I now know differently and wanted to share this with you.

Photos by the author.

ARRL member Mal Eiselman, NC4L, has been licensed since 1961 and has been a member of the ARRL for the past 30 years. He currently holds an Amateur Extra class license. He is a trained cardiologist who practiced in Hollywood, Florida for 30 years before retiring in 2003. His Amateur Radio interests include keeping in contact with old friends as well as making new friends on the air on a daily basis. His second interest is making electronic things work better. You can reach the author at 3650 N 55th Ave, Hollywood, FL 33021 or at NC4LMal@aol.com. Visit his Web site at www.w8kvv.com.nc4l.

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