

## Contra Costa Communications Club, Inc An ARRL Affiliated Repeater Group Dedicated to Service



## Sunshine Committee



### Hello everyone:

I hope this little slice of love finds you all safe and healthy. We think about you often. Know that you are all in our prayers and thoughts.

Sincerely, Burgie, KE6MSF

# erererererererererererere







Kids get out of school: keep an eye out for them when driving.

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### **President's Blog**

Well, even if we didn't meet during May, your president was busy visiting his group of Doctors. I spent a couple of hours on my back while a nice doctor tried to make me beautiful. Yes, you're right, it was the impossible dream, but she got as close as possible. Then it was off to the foot Doctor. It seems that after I tripped over Sinkner, my lab, about a year ago, I messed up my big toe, and the nail was growing in sideways. The Doctor offered two choices, come in every 3 months and have them trim it or take off the nail for good. So off came the nail and on went the funny shoe. If they had given me two of those shoes it would have been one half of a clown outfit. Then off to the skin Doctor where I got a bad case of brain freeze while she froze this bump and that bump and told me to wear a hat.

Audrey and I have been doing writer coaching at Richmond High this year, and even though English was not my favorite class, I found it rewarding. You spend two hours a week for about thirteen weeks during the year. The students bring their writing assignments and you help them write it. There is some instruction at the beginning of the year and a leader of each school site helps you to prepare each week. The students really respond as soon as they understand that you are there to help and not grade them. If you can spare a couple of hours a month, they sure could use more coaches. They work in El Cerrito High, Richmond High, and next year, they will be doing Kennedy High. It takes about 150 coaches per school. We made it past Mothers' Day and Memorial Day, and summer is on the way. The next thing will be the picnic at the end of summer. We are still looking for people to check in on the nets. We are about ready to restart the Wednesday

#### 2014 CONTRA COSTA COMMUNICATIONS CLUB, INC. DAILY AND WEEKLY NETS

DAYS	NET CONTROLLER	REPEATER/NET NAME/TIME
MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY	MICHAEL K6CUG BOB AB4AL BOB W6WTJ ALT: STAN KB6SEI GARY KG6RJA	145.110 OVER-THE-HILL 7:10 AM
WEEKLY - TUESDAY QRM	ROBBY N6MNL BOB AB4AL JEFF KL6RHF MICHAEL K6CUG RICH KO6FR	224.300 CLUB 220 NET 7:30 PM
WEEKLY - WEDNESDAY	JEFF KJ6RHF	145.110 OPEN NET 8:00 PM
WEEKLY - THURSDAY	MEMBERS ROTATE	145.110 WEST CONTRA COSTA CTY RACES 6:45 PM
WEEKLY - THURSDAY	ROBBY N6MNL FRED W6BBQ JEFF KJ6RHF BOB AB4AL MICHAEL K6CUG	145.110 CLUB NET 7:30 PM
WEEKLY - THURSDAY	OPEN NET	145.110 TECHNICAL NET 8:00 PM

# Club Officers For 2014

President: Fred Nieman W6BBQ (2014) 0	Committee Chairperson
V. Pres: Don Hamma KE6ZFP (2016) 2	Membership:
Secretary: Burgie Jones KE6MSF (2016) 2	Audrey Nieman, KD6MVH
Treasurer: V. Thompson KE6FSU (2015) 2	
Trustee: Fred Nieman W6BBQ (2021) Director: Robby Robinson N6MNL (2015) 1 Director: Mike Nicholson K6CUG (2014) 1 Director: Robert Seymour KI6KOU (2016) 2	Technical Committee: ( Chair) Robert Gregory AB4AL Paul Henson KF6FMX Fred Nieman, W6BBQ Alen Alsing KJ6JIS Jeff Miller KJ6RHF
RACES Contra Costa County Mike McMillan K6MCM	Packet:
510-223-3052	Robby Robinson N6MNL
	NARCC:
Repeater Controller's	Fred Nieman W6BBQ
Call to report any problems or concerns	Picnic:
Robby. N6MNL Fred W6BBQ Bob AB4AL Jeff KJ6RHF Roger KE6SZG	Fred Nieman, W6BBQ Christmas: Barbara Robinson KD6OKJ Newsletter: Victoria Thompson KE6FSU 510-326-2361

the host but I am sure he would like to have some Elmers join in.

See ya at the meeting June 8<sup>th</sup>. Fred W6BBO

## **Technical Update & Recommendation**

On Saturday, May 31, there was a work party regarding the repeater. Robby N6MNL: Bob AB4AL: Fred W6BBQ: Roger KE6SZG attended.

The following is an update and a recommendation from Bob AB4AL, Technical Chairman.

As you have seen our 440 Duplexer (cavities) are in a box all torn apart. If critical parts aren't missing, with luck, they might be put together and tuned.

In just about every case the procedure for doing this, and the most accurate, is to use a spectrum analyzer. A spectrum analyzer looks like an oscilloscope but is far from being one. It is a device that displays frequency across the screen whereas an oscilloscope displays time. Also the spectrum analyzer has built into it a receiver and a signal generator. The type of spectrum analyzer used must be capable of operating in the frequency range we need.

The less accurate method of tuning the cans is to use a service monitor to generate the signal to pass through the transmit side, then the receive side and tuning for the desired points of signal pass for each side, that is transmit and receive.

The interconnect coax between the cans are critical in their length to compensate for the velocity factor of the coax being used. If this is ignored and we simply interconnect the cans without regard to this, then the insertion loss will be greater then if we compensated our cable length for velocity factor.

What is velocity factor you might ask? It is the percentage of the speed of light

night net for new hams. Jeff, KJ6RHF, will be (186,282 miles/second) that a radio wave at a given frequency travels through the coax. Aren't you glad you asked?

> We aren't going to buy a spectrum analyzer, they are thousands of dollars!

If we can't make our duplexer "kit" operate correctly, then you can consider buying another unit that is built and tuned for our frequency. Used commercial duplexers can run perhaps \$300.00 and are tuned by the seller for the frequencies you specify. There are also compact new duplexers made in China that can be bought on eBay for around \$80.00. Here is a video that compares the two.

Duplexers evaluated If the link does not work here is the address. http://www.youtube.com/ watch?v=uNf4u-9KgK0

Our site has a new high gain 440 antenna and is fairly high in altitude, so we need to reject adjacent frequencies on the receive side, not just our transmit frequency. Also, our transmitted signal needs to be very tight in its spectral purity. All transmitters generate spurious signals at harmonics above and below the intended frequency of operation. PAVPAWS (Air force early warning defense radar) operates in the 440 spectrum so we can't afford to allow harmonics to be broadcast, thus the duplexer must be precisely tuned and offer rejection of harmonics. If you looked at the video, the commercial duplexer vice the Chinese Andaer duplexer, the commercial duplexer offers much greater rejection to adjacent frequencies.

My recommendation is that we attempt to reassemble the duplexer we have and using a service monitor tune it as best we can to determine if it will even operate. If it operates, then we can consider having it professionally tuned with a spectrum analyzer.

If anyone has any questions, please contact me at ab4al@att.net. We are going from row boat speed to Warp One.

**Bob AB4AL** 

## **Treasures Report for MAY**

**INCOME** 

**EXPENCES** 

Membership \$ 25.00

**Insurance:** 

**Donation to Memorial** fund \$ 100.00 **Equipment** \$233.00 Liability \$300.00

Total \$ 125.00 **CA Corp. Fee \$ 20.00** 

**Total** \$553.00



Enjoy the company of friends



Barbara



Meredith (AB4AL's XYL)

#### **Memorial Fund**

Thank to Jeff, KJ6RHF for his \$100 contribution in memory of Dar, K6USW.

This brings the fund to a total of \$2,239.00

#### **VE TEST Sessions**

EBARC, ORCA, and ARCA sponsor joint ARRL VEC Amateur Radio Test Sessions quarterly (see location and dates below). Info at 510-918-4627 or 510-741-8227.

Media Room (Oakland Fire Dept.) 1605 Martin Luther King Jr. Way (at 16th St.) Oakland, CA 94612

All VE Sessions are held on Sundays at 9am local time on the following dates for 2014:

> July 27th, October 26th

# **VISIT**



Robert KI6KOU and Martha KI6KOV

## Pizza Night



Relax a little



Bob AB4AL & Bob W6WTJ



Ron KE6RS & Jim AC5OI



Audrey KF6MVH Victoria KE6FSU



Bob W6WTJ & wife

#### ANAHEM, CA (Wear Disneyland) 933 N. Escald St., 92901 (714) 533-7373 (000) R54-80AB

Janet, KL7MF, Mgc

BURBANK, CA 1525 W. Magneta Bt., 01506 (818) 842-1786 Erlo, KSEJC, Mgr. Magnella between 5. Victory & Buena Vista berbest/Orbanisalle.com

OAKLAND, CA 2210 Livingston St., 94606 (510) 534-5757 (877) 892-1745 Nick, AMBDX, Mgr. 1-990 at 23rd Avv. rs mp exhibited Offerners dio.com

SAN DIEGO, CA 5375 Kearry Win Rd., 92123 (858) 560-4900 Jarry, NSMCJ, Mgr. Hwy. 163 & Claremont Mesa madispotiturerado.com

SUNHYVALE, CA 510 Lawrence Exp. #102 (408) 736-9496 Jon, KEWV, Mgr. So. from Hwy, 101 scenyselo@bosradie.com

**NEW CASTLE, DE** 

(Wear Philadelphia) 1509 N. Dapont Hwy., 19720 (302) 322-7092 Ken, N2OHD, Mgc HT.13 1/4 ml., So. H295 delawa.com houseadle.com

PORTLAND, OR 11705 S.W. Pacific Hwy. 97223 (503) 588-0555 Leon, W7AD, Mgs

Tigard-99W add from Hay, 5 & 217 peritural Otteranadio.com

DENVER, CO 5400 E. HT Ave. #0, 80231 (303) 745-7373 John Well G, Mgr. damor@hossosile.com

PROENIX, AZ 10613 N. 43rd Ava., 85029 (602) 242-3515 Gary, N76J, Mgr. Corner of 43rd Ave. & Peorla. shough Others redio, core

6071 Bulland Hwy., 30340 (770) 263-0700 (800) 444-7927 Mark, KJ4VO, Mgr. Doraville, 1 ml. no. of I-285 attents/86ammdio.com

Wood Barbes, VA (Near Washington D.C.) 14803 Build America Dr. 22191 (703) 643-1063 (860) 444-4799 Stave, W45HG, Mgr. Ext 161, H95, So. to US 1 virginized in country, com

SALEM, NH (Near Boston) 224 R. Broadway, 03079 603) 898-8750 Steve, K15MD, Mgr. Ext. 1, 1-03: 28 rel. No. of Boston antore@esmedio.com

#### BUYING POWER STORE





## KENWOOD



#### TS-2000 HEAVHE/UHF TOWN

 100W HF, 6M, 2M = 50W 700M + 10W 1.2GHz w opt UT-20 module . Built-in TMC, DX packet cluster . IF Stage DSP . Backlit front key panel



#### TS-590S HF + 6M Transceiver

• 100W HF + 6M • 500 Hz & 2.7 KHz roofing filter · Built-in auto tuner · Best dynamic range is class

32 bit DSP



#### TM-281A 2 Mtr Mobile

• 65 Wat • 200 Memories • CTCSS/DCS • Mil-Std specs . Hi-quality audio



#### TM-V71 A 2W440 Dual Band

. High RF output (50W) . Multiple Scan . Dual receive on same band (VxV, UxU) = EchoEsk\* memory (axto dialer) . Echolink® Sysop mode for node terminal ops

#### 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

· Liffor Battery



#### IC-7600 All Mode Transceiver

• 100W HF/6m Transceiver, gen oov. receiver • Dual DSP 32 bit • Three roofing filters- 3, 6, 15khz • 5.8 in WOVGA TFT display . Hi-res real time spectrum scope



 HF/to/144/420/440 MHz Multi-band, Multi-mode, IF DSP \* D-STAR DV Mode (Digital Voice + Data) \*Intaitive Touch Screen Interface . Built-in RTTY Functions.



#### IC-V8000 2M Mobile Transceiver

. 75 watts . Dynamic Memory Scan (DMS) CTCSS/DCS excode/decode whose some - Weather alert • Weather channel scan • 200 alphanumeric memories



#### ID-5100 A VHF/UHF Deal BandDigital Txovr

 Analog FW/D-Star DV Mode • SD Card Slot for Voice & Data Storage • 50W Output on WHFUHF Bands • Integrated GPS Receiver • AM Airband Dealwatch \* FM Analog/DV Repeater List Function

#### VHRUHF Deal Band D-51A 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/WFWOV - 1304 Alphanumeric Memory Chis - Integrated GPS - D-STAR Repeater Directory - IPX7 Sebmersible



# YAESU



#### FTDX-3000 100W HF + 6M Transceiver

 100 Watt HE/6 Meters • Large and wide color LCD display \* High Speed Spectrum Scope built-in \*32 bit high speed DSP / Down Conversion 1st IF



#### FT-8800R 2M/440 Mobile

 V+U/V+WU+U operation • V+U full duplex • Cross Band repeater function \* 50W 2M 35W UHF \* 1000+ memory changels . WIRES ready



#### FT-4500 100W HF + 6M Transceiver

. 100W HF/6M . Auto tuner built-in . DSP built-in . 500 memories . DMR, IF Notch, IF Shift



#### FT-8570 Ultra Compact HF/HF/UHF

. 100w HF/SM, 50W 2M, 20W UHF . DSP included 32 color display • 200 stems • Detackable from: panel (rux-97 required)

#### FT-60R 2M/440 5W HT

· Wide receiver coverage · AM air band receive + 1000 memory channels w'al-phalabels + Hage LCD display + Rugged die-cast, water resistant case + MCAA severe weather alert with ziert scan



Carrie visit las 11.11.11





Contra Costa Communications Club Inc. Repeater ID: WA6KQB 145.110, 224.300, 444.275 PL 82.5

Simplex 146.505

Packet "Node" CC4CC 145.05 Packet "Mail Box" TBD

Home Page: http://www.wa6kqb.org

Club Address: CCCC, Inc. P.O. Box 20661, El Sobrante, CA 94820-0661

#### A NON-PROFIT CLUB DEDICATED TO SERVICE

Contra Costa Communications Club, Inc. P.O. Box 20661 El Sobrante, CA 94820-0661

**POSTMASTER: ADDRESS CORRECTION REQUESTED** 

## Next Regular Club Meeting: June 8, 2014

Denny's on the corner of San Pablo Ave. and Potrero Ave in El Cerrito, CA 94530 **Breakfast at 7:15 a.m. Club meeting at 8:00 a.m.** Board meeting at 8:45