



May 2016

QUA CVARC

A Newsletter for the Conejo Valley Amateur Radio Club

President's Message

Andy Ludlum-KI6NON

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QUA CVARC Newsletter Editor

Norm Campbell-AB6ET
radioAB6ET@verizon.net

It's rare to hear the price of something is going down, but that's the case with CVARC dues.

In March we formed a special committee of the board to review the club's dues structure. As you know, we've stopped mailing out the monthly newsletter, making it an entirely online publication. That allowed us to stop spending on postage which had been the club's largest expense.

With that savings in mind, the committee was asked to look at whether member's dues could be reduced while still keeping the club in a good financial position for the future.

At the April club meeting, members approved the committee's proposal to reduce the annual dues as follows:

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Club Meeting and Pre-Meeting Dinner Information, Thursday May 19

The regular club meeting is Thursday, May 19 (always the third Thursday) at the East County Sheriff's Station Community Room at 7:30 p.m. Talk-in coordination is on the Bozo repeater, 147.885 (- 127.3).

The guest speaker is Kristen McIntyre-K6WX. Kristen takes a look at grounding, does it make sense, and if it exists. See notice for more information.

Join fellow club members and the guest speaker at the pre-meeting dinner at Lupe's Mexican Restaurant, Thousand Oaks. See notice for more information.

President's Message, continued from Page 1

- Single membership is reduced from \$25 to \$20 dollars
- Family membership is reduced from \$30 to \$25 dollars
- Multi-year single membership is reduced from \$20 to \$16
- New Ham 1st year rate of \$10 is unchanged

In order to be fair to members who have already paid their dues for this year, we decided the reduction will become effective May 1, 2017. This will also allow us to transition to having everyone's dues payable at the same time.

Nothing changes for members renewing this month, but beginning with June renewals, you would pay on a pro-rata basis through April 30, 2017. Then going forward, all members would renew on May 1st.

It will take a little special attention to make the transition, but we're ready to help you out. Either visit with Christian at the club meeting or email info@cvarc.org for pro-rated dues figures for renewals between June and April, 2017.

I want to thank the members of the special committee, Norm Campbell-AB6ET, Ben Herrera-W6JWZ and Christian Ylagan-K6CAY for meeting with me and conducting a thoughtful analysis of CVARC's finances.

CVARC's "Year of the Project" was enjoyed by a couple of dozen members who spent the morning of Saturday, April 30th at the Sheriff's Station building the Altoid tin 9:1 unun. Besides having a nice, minty smell, the unun works quite well! Thanks to Ben Herrera-W6JWZ, Ben Kuo-KK6FUT, and Norm Campbell-AB6ET for helping everyone through the build. We'd like to do more projects this year. If there is something you think would make a good club project, please let us know.

It's not too late to sign up for the tour of the Rabbit Radio repeater site on Chatsworth Peak. The "open house" will be June 4th from 1-3p.m. Rabbit Radio Network President and CVARC member Emmett Dunlap-WA6COT will take sign ups again at the May 19th club meeting. There are a number of interesting installations at the site as well as a fantastic view.

73,
Andy-KI6NON

Member's Survey — Club Projects. Results of Previous Survey

Follow this link to the current survey which asks about your preferences in club projects. There are very few questions and it should only take a minute to complete. <https://www.surveymonkey.com/r/HXB6NF7>

Did you know that greater than 90% of club members surveyed are ARRL members? Click on the following link to find out what your fellow members are most interested in doing with our hobby!

[Conejo Valley Amateur Radio Club Survey - Club Member Areas of Interest](#)

Participate. You are needed, your radio skills are needed, your club needs you, your community needs you.

If not me, who?

If not now, when?

Pre-Meeting Dinner

Join your fellow CVARC Hams and guests this month for the pre-club meeting dinner at 5 pm with our speaker at Lupe's Mexican Restaurant, 1710 Thousand Oaks Blvd, in Thousand Oaks, at the intersection of Erbes Road and TO Blvd, phone: 805-495-3573. We have a reservation made under CVARC/Michelle. Hope to see you all there!

Club Meeting Guest Speaker

Kristen McIntyre, K6WX, has been interested in radio since she was about 5 years old. She started in Amateur Radio in 1979 getting her ticket while at MIT. Kristen has worked in many diverse areas from analog circuit design to image processing to starting and running an ISP. She is currently working at Apple in Core OS, and spent many years at Sun Microsystems Laboratories where she was researching robustness and emergent properties of large distributed computer systems.

She is a long time denizen of Silicon Valley and has worked at or consulted for many of the usual suspects. Kristen is an active ham and loves to chase DX on HF with her Elecraft K2 which she built while visiting her mother in Florida. She is an ARRL Technical Coordinator for the East Bay Section, president of the Palo Alto Amateur Radio Association, and is active in many local clubs.

SUBJECT: Field Day 2016 - Signups - Info needed:

Howdy all!!!!

Field Day is fast approaching and will be at Maple Elementary School in Newbury Park as in years past. As always, FD is the last full weekend in June. Set up is Friday June 24, Field Day is June 25 and 26, teardown June 26.

At the last General Meeting we developed a list at the back table. Many of you signed up, I may need to have you sign up again to make sure I have it Thank you very much.

Please confirm with me: your name/ call sign/ cell phone number/ bringing a radio/ antenna/ can you run off of battery, solar, combo/ mode/ band/ overnight/ help with setup, tear down, or any ancillary stuff?

I have last year's list of assignments. I will reach out to y'all directly. I will be quickly asking for a committee and arranging a meet-up to discuss some things.

Review the ARRL Field Day rules at <http://www.arrl.org/field-day>

Hope you are all well.

Ben Herrera-W6JWZ
w6jwz@outlook.com

You Are Needed - CVARC Social Director

One position on the CVARC Board of Directors still needs to be filled and that is the vital post of Social Director. Much of the framework has already been established by Mark-KK6IKX and Michelle-KK6RBW who will be available to coach the new director.

Contact President Andy-KI6NON or any board member for more information.

Members Have Done

The April CVARC general meeting began early in Moorpark at the Szechuwan Garden. Guest speaker Ben Kuo-KK6FUT joined more than a dozen club members for discussion and dinner before heading to the East County Sheriff's Station for the regular meeting.

At the Community Room of the Sheriff's Station, President Andy-KI6NON introduced the new club banners that can be used at any CVARC event to draw attention to the club and the activity taking place. In addition to the banners, he presented a tri-fold brochure describing the club than anyone can use to promote the club and its mission. The tri-fold brochure is available as a printable PDF on the CVARC Yahoo discussion site. And to further promote the club by members, Andy announced that the club is printing business cards with the club logo, call sign, and website. Members can have a few to pass out when making eyeball-QSOs and promoting the club.

Andy broke the news that the club is reducing dues and realigning the due date for all memberships. The new rates and structure of pro-rata dues required a by-laws change which was enthusiastically received and approved by the membership.

And keeping with streamlining club recordkeeping and assets, the underutilized loaner FT-60R handheld radios have been checked, given new batteries, and boxed for delivery to be raffled as the grand prize at about ten club meetings.

After a few general announcements, the meeting was turned over to guest speaker and club member Ben Kuo-KK6FUT.

Following the club theme this year, Ben talked about building and constructing homebrew radio gear. He says, "Anyone can do it, you can do it too." Ben listed the benefits of building your own equipment and noted that we learn how things work, can save money, and improve our contacts.



how things work, can save money, and improve our contacts.

He said that that projects can be easy or hard depending on the complexity but starting with a speaker box or dipole antenna is useful. Moving on to complete units such as a tube or transistor transmitter or receiver is just a series of small steps. He prefers scratch built versus circuit board kits.

He advocates building something once, then building it again as well as, "Test, test, test," while looking for "magic smoke" hidden in your radio.

Ben noted that having adequate tools and a good junk box of parts are definitely needed.

He recommends having at a minimum a solder station, multi-meter, possibly an oscilloscope, and parts such as resistors, capacitors, and knobs. Enclosures can be anything from cigar boxes to repurposed found boxes.

He says members should develop resources (internet) and talk to one another about sharing junk boxes. Ben said lots of projects can be found on the internet, in QST magazine, or QRP Quarterly magazine.

The evening was topped off with refreshments provided by Eric-WB6PYK and Rodi Ludlum brought by Andy-KI6NON.



Members Are Doing

Sunday nights, Newbie Net, 7 p.m., Bozo Repeater 147.885 (-127.3), all are welcome especially newer hams. Want to be net control? The procedure will be provided. Contact Todd-KD6RCM, kd6rcm@arrl.net.

VHF Simplex Rag Chew, monthly or more frequently as desired, Sundays after Newbie Net, 146.550, open for all.

Tuesday nights, ARES/RACES net, 7 p.m., Bozo Repeater.

Wednesday nights, HF Roundtable, 7 p.m., 21.333 ±, USB, all are welcome.

Second Thursday, Board of Directors meeting, 7:30 p.m., Westlake Village City Hall, any member welcome.

Third Thursday, regular CVARC club meeting, 7:30 p.m., East County Sheriff's Station, dinner first somewhere at 5 p.m.

Send me a note if you know a recurring activity that should be listed here. -Ed.

Members Are Planning (Calendar)

Date	Event	Links	Contact Person
May 12	CVARC Board Meeting, 7:30 pm, WLV City Hall		
May 14	Simi Valley Emergency Preparedness Expo, 0630-1700, Steve King	ke6wez@arrl.net	
May 14 – 15	50 MHz Spring Sprint, 2300 – 0300Z	https://sites.google.com/site/springvhfupsprints/home/2016-information	
May 14-15	Armed Forces Day Cross Band Military Amateur Radio Service Communications test, 1200z-0600z (freqs on website calendar)		
May 17	Amgen Tour of California		
May 19	CVARC General Meeting, 7:30 pm, ECSS Thousand Oaks		
May 29	Mountains2Beach Marathon-Ojai to Ventura	http://www.mountains2beachmarathon.com/	Rob w6rh@hotmail.com
June 4 -5	10-10 International, Open Season PSK Contest	http://www.ten-ten.org/index.php/activity/2013-07-22-20-26-48/gso-party-schedule/2-uncategorised/51-open-season-rules	
June 5	Love Run, Westlake Village, Zak	n6pk@arrl.net	
June 9	CVARC Board Meeting, 7:30 pm, WLV City Hall		
June 11 – 13	June VHF Contest	http://www.arrl.org/june-vhf	
June 12	VE testing, ECSS, 8:30 am		
June 16	CVARC General Meeting, 7:30 pm, ECSS		
June 18	Kids Day	http://www.arrl.org/kids-day	
June 18	Santa Maria Radio Swapfest, Orcutt	http://www.satellitearc.com	
June 25 – 26	Field Day	http://www.arrl.org/field-day	
July 3	Moorpark Fireworks, Marc Hanley	km6b@arrl.net	
July 8-10	Santa Barbara 100		
July 9-10	IARU HF World Championship	http://www.arrl.org/iaru-hf-championship	
July 11	ACS-ARES District Meeting, 7:30 pm, Ojai		
July 16 – 17	CQ Worldwide VHF Contest, 1800z – 2100z		
July 21	CVARC General Mtg, 7:30 pm, ECSS, Topic: Field Day Recap/Solar Power		
August 6 -7	10-10 International, Summer Contest, SSB		
August 6-7	Angeles Crest 100 mile endurance run	http://www.ac100.com	

Go to the <http://www.cvarc.org> calendar tab for additional events, links, contact persons, locations and times.

Emergency Communications Column

By Zak N6PK

This is the first of many columns that will cover various issues in emergency communications.

CVARC is a full service club and emergency communications is part of the mix. We have several opportunities to practice emergency communications.

Help out in various community events to practice network operation and network procedures.

Join ARES to practice emergency communications in the field and, when available, in disasters.

Join ACS to practice emergency operations and communications in various agency Emergency Operations Centers.

As stated in FCC Title 47: Telecommunication – Updated September 2014 – Part 97 Amateur Radio Service, the first recognized purpose of amateur radio is to provide emergency communications.

Subpart A—General Provisions §97.1 Basis and purpose.

The rules and regulations in this part are designed to provide an amateur radio service having a fundamental purpose as expressed in the following principles:

- (a) ***Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications.***
- (b) Continuation and extension of the amateur's proven ability to contribute to the advancement of the radio art.
- (c) Encouragement and improvement of the amateur service through rules which provide for advancing skills in both the communication and technical phases of the art.
- (d) Expansion of the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts.
- (e) Continuation and extension of the amateur's unique ability to enhance international goodwill.

We use, and can instruct in, various modes of radio. If you want to learn digital technologies, mesh networks, CW operation and voice messaging, ACS and CVARC teamed together, can help fulfill your needs.

Technician Class License Training Continues

The five session license training began on May 7 and continues the following Saturdays. Zak-N6PK and Tim-K6POI say interested persons can still join the class and make up for lost time.

Morse code is not required. The Technician Class license grants privileges on the popular VHF and UHF bands.

Training is at the Community Room of the East County Sheriff's Station (same as club meetings) between 9 a.m. and 1 p.m. The goal is to have students ready for the June 12 VE testing session.

CVARC sponsors the training. There is no cost for the training, but purchase of study and training material is required.

Contact Zak-N6PK for more information.

n6pk@arrl.net

Upcoming CVARC Speakers and Topics

Thursday, May 19, 2016 - **Ground Is A Myth!** Kristen McIntyre, K6WX. Ground is something you stand on, but in an electrical sense, the meaning is much less clear. When it comes to hams and ground, things get really confused. We drive rods into the earth, but why? Kristen takes a look at whether any of this makes sense, and what theory tells us about "ground" and if it exists in any sensible way at all. We'll talk about DC grounds, RF grounds, and even about gravity.

Thursday, June 16, 2016 - **Field Day Planning & Prep:** Ben Herrera, W6JWZ will have an overview of the club's plans for the annual Field Day event June 25-26, 2016. Setup begins on Friday, June 24th. Our Field Day site will once again be Maple Elementary School, 3501 Kimber Drive in Newbury Park. We'll have dedicated antennas for all bands and will feature operation in all the various modes such as phone, CW and data. There's something for everyone, from QRP to battery power.

Thursday, July 21, 2016 – In addition to a **Field Day Recap** from Ben Herrera, W6JWZ we'll hear from Kevin Zanjani of Bioenno Power of Santa Ana. Kevin will tell us about state-of-the-art **LFP (Lithium Iron Phosphate) Batteries** which are safer, longer lasting and more efficient than the batteries we've been using in the field. These batteries work well with small solar panels and are growing in popularity with hams throughout the world.

Thursday, August 18, 2016 – **Emergency Preparedness for Hams and By Hams:** Karl Moody, AE6TO. We all know ham radio has saved lives during emergencies and may be our only available form of communication "when all else fails." Yet some homeowners associations and cities don't understand the value of amateur radio during emergencies. Karl believes a lot of the problem is due to lack of information. The solution? He believes we should become emergency specialists as leaders in our communities who train our neighbors how to prepare for disasters.

Thursday, September 15, 2016- **QRP:** Terry Graves, K7FE talks about QRP operation. The QRP Q signal was created to mean, "Shall I reduce power?" but has since been adopted by the enthusiasts who transmit at reduced power while attempting to maximize their effective range. In this CVARC "Year of the Project," QRP operation stands out as a home-brewer's dream as it is certainly possible for nearly anyone with the ability to obtain a ham license to build QRP-ready projects such as a 5W transmitter.

Thursday, October 20, 2016 – **Repeaters.**

Thursday, November 17, 2016 – **DX-peditions**

December, 2016 – No club meeting. **CVARC Holiday Party**

Thursday, January 19, 2017 - **Microphones**

Thursday, February 16, 2017 – **ATV:** Slow and Fast Scan Television

Thursday, March 16, 2017 - **RFI**

Thursday, April 20, 2017 – **Ham Radio and Rockets, Balloons and Planes**

The Speakers Committee (Brad Ormsby, W6VO, David Arata, KA9WMI, Tim Wheeler, K6POI and Andy Ludlum, KI6NON) is always interested in your program ideas. If you have thoughts on who might be a good speaker for a club meeting, please let any of us know.

Newbie Net Schedule

Sunday nights, 7 p.m., Bozo Repeater 147.885 (-127.3), all are welcome especially newer hams. Want to be net control? The procedure will be provided. Contact Todd-KD6RCM, kd6rcm@arrl.net.

5/15- Arie-WA6RIE

5/22-Stu, AG6AG

5/29-Bob, W6CJX

6/5-Stu,AG6AG Simplex Net Follows (7:45 p.m.?) 146.550

6/12-Ben,W6JWZ

6/19- Arie-WA6RIE

6/26-Bob,W6CJX

Thanks all,

Todd-KD6RCM

What is “Short Wave?”

The question came up recently asking, ‘What does “short wave” mean?’ And if there is a short wave, would there also be a “long wave,” and could there be an even shorter wave than a short wave?

Well, in a word, yes.

When we talk about waves we generally refer to the wavelength of a signal on a certain frequency. We know that the lower the frequency the longer the wave, and of course, the higher the frequency the shorter the wave. As hams, we often refer to our bands as wavelengths, such as 80 meters or 40 meters. Wavelength is the measure of distance in meters of one cycle or **wave** (known as a Hertz after Heinrich Hertz) for a given frequency. We cut our antennas to be efficient radiators based on wavelength.

When wireless was new, equipment was primitive. Radio signals were generated in the low frequency (VLF or LF) range of 800, 600, and 400 meter wavelengths. We know those frequencies now as **Long Wave**. Those frequencies are from the AM broadcast band (535 –1705 kHz) and lower. Yes, there is radio activity below the AM band even today.

The frequency of 800 meters is around 375 kHz, below the current AM broadcast band. The wavelength of 800 meters is about 2,500 feet. That is a long wave. Compare that to a frequency of 14 mHz, or 20 meters, with a wave of 65 feet.

Experts at the time thought the long wave frequencies were the only place radio was any good. Amateurs (hams) were given the useless frequencies of 200 meters and down. We know them as **Short Wave** frequencies. The hams figured out that the short waves, generally from about 3-30 mHz, turned out to be pretty good for short, medium, and long distance communications. Then everyone wanted in. We refer to those frequencies as the HF (high frequency) band.

Long wave required a lot of power to communicate, often in the thousands of watts. Short wave could communicate reliably on a lot less power, sometimes in the hundreds of watts or less. We know about this as radio propagation caused by the ionosphere.

As the radio spectrum became more crowded, experimentation went higher and higher in frequency. We know that all kinds of radio takes place on the very high (VHF), ultra high (UHF), and higher frequencies. The higher the frequency the shorter the wave lengths, in fact they get so short they are called **Micro Waves**. A step higher is visible and invisible **Light**.

Take a look at the National Telecommunications and Information Administration (NTIA) chart from the Department of Commerce for the US radio spectrum of 3 Hz to 300 GHz. There is a lot going on out there. Note where the ham bands are located in the great scheme of things if you can find them.

https://www.ntia.doc.gov/files/ntia/publications/spectrum_wall_chart_aug2011.pdf

Conejo Valley 2016 Camporee, Recap

I spent a thoroughly enjoyable, yet very dusty, windy and physically exhausting day last month at a Camporee produced by the Conejo Valley District of the Boy Scouts of America. Each of the 20 Scout Troops attending the Camporee set up tent villages and challenge booths for a day of friendly competition on the grounds of the Reagan View Ranch off Tierra Rejada Road in Moorpark. Many of the challenges were opportunities for the scouts to achieve merit badges. Others were just for fun... to win prizes.



Ben-KK6FUT signs up Scouts for competition



I volunteered to help out at one of the fun ones... "The Morse Code Challenge"... created by Ben Kuo, KK6FUT, a Scout Leader for Troop 730 of Newbury Park. The purpose of the booth was to interest the scouts in Amateur Radio... to encourage them to get on the air, to make contacts and to accept "The Morse Code Challenge". Beyond Ben, four of CVARC's finest were there to make this happen. Tom Stough, W0UFC, was working 20 and 40 meter CW, and the rest of us... Dave Arata, KA9WMI; Stu Sheldon, AG6AG, and I were on 20 and 40 meters SSB. Our most distant contact of the day was with a Vermont station, but our proudest accomplishment of the day was sparking QSOs between numerous scouts here at the Camporee in the Conejo Valley

with scouts participating in a "Jamboree on the Air" in Oklahoma City, OK!

Throughout the day we were also exchanging calls with the Emergency Trailer for the City of Thousand Oaks using the Bozo 2-meter repeater. Zak Cohen, N6PK, Emergency Coordinator for Ventura County's Auxiliary Communication Service, Area 2, was showing off the emergency communication capabilities of the trailer as a participant in the "Arbor Day Expo" on the campus of Thousand Oaks High School on Moorpark Road. Since they were performing demos just like we were... we called each other fairly frequently throughout the day to link the scouts in Moorpark with boys and girls their age in Thousand Oaks. Operating the radios with Zak were Andy Ludlum, KI6NON, Norm Campbell, AB6ET, Peter Heins, N6ZE, Brian Thornton, K6UGA, and Kevin Kinney, KI6LKF.



Zak -N6PK and Colin communicate with Scouts

Meanwhile, Ben was enjoying a constant flow of scouts stepping up to take "The Morse Code Challenge". He had pre-recorded the familiar Boy Scout slogan, "Do a good turn daily", in CW on his iPod. Each scout accepting the challenge was required to copy the code accurately, then to decode the slogan letter by letter. Many knew the slogan so well, that they guessed it before finishing their decoding. The scouts who successfully completed the challenge qualified their troop and themselves for entry into a later raffle drawing for two hand-held radios and an ARRL study manual for the Amateur Technician License. The prizes, donated by the Conejo Valley Radio Club, were awarded by Ben at the Camporee's evening campfire gathering. Congratulations to the winners... Troop 787 of Thousand Oaks and Scout Ayush Gupta.



Ben awards prize to Scout Ayush Gupta

I left the Camporee pleased with my new realization that we, as Amateur Radio Operators of America, have had many things in common with the Boy Scouts of America. Both the BSA and the ARRL were founded at approximately the same point in history... 1910 and 1914 respectfully... by men of exceptional moral vision... Robert Baden-Powell and Hiram Percy Maxim.

One of the oldest Boy Scout merit badges is the one given for a proficiency in Radio.

Boy's LIFE Magazines ran numerous feature articles, over the years, on the "Boys LIFE Radio Club"... which many in Scouting believe to be the precursor of the present-day "Jamborees on the Air".



And lastly, Mentoring plays an active role in training newcomers to both the Boy Scouts and Amateur Radio... with a subtle difference, as I learned from Sam Pechter, a very poised 17-year old Life Scout and the appointed Senior Patrol Leader of the entire Camporee. He described Mentoring as a duty and responsibility of a senior scout to share his knowledge with new scouts or ones of lesser experience. Adult troop leaders are not allowed to mentor the scouts. They are there for general support, guidance and safety. The emphasis of the entire scouting program is to train the scout to take a morale responsibility for himself and his environment.

Sam communicates, David-KA9WMI and Tim-K6POI assist

Sam plans to achieve Eagle Scout status and become an Adult Scout at age 18. "I'll be starting at the bottom again", he told me, "... a new fish in a new pond".

Probably not for long, Sam. Best Wishes from the Conejo Valley Amateur Radio Club,

73 & Be Well, All
Tim Wheeler -K6POI

UNUN Building Project Results

About two dozen club members and participants recently met at the East County Sheriff's Station to build the 9 to 1 UNUN balun for matching HF wire antennas. This building project follows the club theme this year as "The Year of the Project."

Ben Herrera-W6JWZ led the project, coordinated the participants, assembled the parts for each kit, and mentored the drilling, toroid winding, and soldering. Ben Kuo-KK6FUT actively supervised and has previously mentored building the UNUN with a few other hams. He found the original schematic used in this project.



Builders Prepare to Make the UNUN

After an explanation of what was going to be done, the parts were distributed, and the toroid winding began. From there the participants moved from station to station drilling holes, mounting parts, and soldering where needed.

Every skill level was present for this project. More skilled builders easily worked on and completed their UNUN's and helped others complete theirs. Everyone brought his own Altoids tin for the project which worked just fine to enclose the entire project. Eric-WB6PYK displayed exceptional metal and electrical talent by building his UNUN in an enclosure that was about half the size of an Altoids tin.

Many club members brought in duplicate tools, soldering irons, and contributed other equipment so that participants could move quickly from station to station during the construction.

Necessary refreshments and cookies were provided by Kat-K6VQN who was busy building her own UNUN at the same time.

After a couple of hours most of the baluns were completed. Everyone seemed to have a lot of fun and there was time between phases to visit with one another and do what hams do best, that is, talk a lot.

Quick HF Propagation, WWV and WWVH

If you want to know if the HF bands at least can hear Colorado or Hawaii, tune your HF general coverage receiver to 2.5, 5, 10, 15, 20, and sometimes 25 MHz. If nothing else you can set your watch. Check the NIST website for more information.

National Institute of Standards and Technology (NIST)

<http://www.nist.gov/pml/div688/grp40/wwv.cfm>

For Sale

The following items are offered but are subject to prior sale.

	<u>New</u>	<u>Sell</u>
MFJ-969 Deluxe Versa Tuner II (6 to 160m @ 300w)	\$200.00	\$120.00
Daiwa CN-801 SWR & Power Meter 1.8 to 200 MHz	\$140.00	\$70.00
Tigertronics Signalink USB Digital Sound Card SLUSB8PD-P Combo includes 36" 8Pin DIN cable along with optional SL-Mod 8PD Plug & Play jumper module	\$130.00	\$75.00

Ramsey Electronics FR146 - Two Meter Receiver Kit

This was a kit that I built to experiment with. It tunes any 5MHZ portion of the 136 to 175 Mhz band. Kind of touchy to tune, but fun to play with.

Free for the asking!

All the equipment is in 100% working condition, except the meter light on the Daiwa is burnt out, which happens to 99.5% of this model.

I also have a Lambda 15 amp power supply with remote voltage and amp meter interface box that I built for it. This is free (if wanted) to anyone who buys a minimum of two of the listed items! Will sell it separate for \$50.00.

Mike D'Amore-N6MDA

(805) 496-1073, or email: mikeda1933@gmail.com

Double Duty, Cruisin' and Microwave Sprint

On Saturday, 07 May, Pete, N6ZE/R (DM04me43), and Rick, AG6AY (DM04md58), took a quick break from their public service, "Cruisin' the Conejo", activities to make a 33 cm FM QSO during the Spring 2016 Microwave SPRINT. They each used an ALINCO DJ-G29 FM handheld and a small yagi to communicate over the 1.5 mile path (cell phone 'selfie').



Pete was driving down Borchard Rd. and Rick was located in a church parking lot on Lynn Rd.

They also each spent about 8 hours that day to provide S.A.G. support vehicles for the "Cruisin'" bicycle event.

bt73Pete, N6ZE

Pete-N6ZE and Rick-AG6AY

Programming the Baofeng UV-5R

By Andy Ludlum-KI6NON

Many hams have found the low-priced radios from China like the Baofeng UV-5R hard to resist. Seriously, who doesn't have room for one more HT if it costs less than \$30?

The delight of having a new radio to play with quickly turns to despair when you take a look at what passes as an owner's manual. Programming a frequency into one of the memories is not easy, because the procedure is not described in the manual.

Probably with most of the radios you own, to program a repeater into the memory, you set all the necessary parameters and then write it into the memory only once. With the UV-5R, you do it twice! The receive frequency is stored first, then you store the transmit frequency in the same memory channel.

Most people throw up their hands at all of this and choose to use programming software on their computers. Baofeng's software can be just as challenging as the manual for many people. Many hams are using programs such as CHIRP with great success.

But I've always liked to at least know how to program my radios, especially if I have to make an addition or correction in the field. With a little research and some trial and error I managed to put together ten steps to successfully program a Baofeng UV-5R.

1. Press the VFO/MR key to enter the frequency mode.
2. Enter receive frequency. In this example I'm going to use the BOZO repeater, 147.885.
3. Press the MENU button, then press 2 to set the transmit power, TXP. Press the MENU key again. Select HIGH or LOW power using the up or down arrow keys. Press MENU again to confirm.
4. If you work quickly the radio is still in the MENU mode, just press 25 to set the offset direction, SFT-D. Press MENU key again. Select -, + or OFF. For BOZO it is -. Press MENU again to confirm.
5. Press 26 to set the OFFSET frequency. Press the MENU key again, set the offset using the numeric keypad. Use 000.600 for 2m, 005.000 for 70cm. In this example you want the 2m setting. Press MENU again to confirm.
6. Press 13 to set the tone frequency, T-CTCS. Press MENU, then enter the tone frequency using the numeric keypad. In this example I'm using 127.3 Hz. Press MENU again to confirm.
7. Press 27 to select a memory channel, MEM-CH. Press MENU again to select. Use up arrow key or numeric keypad to find an available memory channel. Channels without CH in front are available. Press MENU again, radio should confirm saying "Receiving memory."
8. Press EXIT, to return to the receive frequency. Press the * button. You should see the transmit frequency, in this example it should be 147.285.
9. Press 27, MEM-CH. Press MENU again and select the same channel as in step 7 in order to store the transmit frequency in the memory. Press MENU again, radio should confirm saying "Transmitting memory." Press * again to return to receive frequency.
10. Press VFO/MR to enter Channel Mode to confirm your selected channel is programmed correctly.

If you want to add a simplex frequency, enter and save the same frequency as transmit and receive. Choose OFF in steps 4 and 6.

Here are a couple of other handy tips. MENU 2 allows you to adjust the squelch. MENU 27 allows you to delete a programmed channel. You probably want to avoid MENU 30 which is RESET ALL!

Remembering Claude Shannon ... the Father of Modern Communications

A bit of history for your information and contemplation:

Claude Shannon (author of the famous Shannon Information Theorem of 1948 https://en.wikipedia.org/wiki/Information_theory) was a brilliant and productive engineer at Bell Labs and MIT. He developed the theory of modern digital communication and his limit theorem is what governs digital communications from our HF ham radio digital modes through cell phones and deep space microwave telemetry. Shannon would be 100 years old this April 28. The IEEE recently published an article that also links Shannon to the development of one of the first "personal computers" back in 1961.

<http://theinstitute.ieee.org/technology-focus/technology-history/did-claude-shannon-invent-a-groundbreaking-personal-computer>

Most of the engineering and science advancements we all enjoy come from small incremental steps which integrate to our base of knowledge. It is rare that a single individual like Claude Shannon makes such ground breaking and long lasting contributions. As we enjoy the fruits of his labor and work to apply and advance the art of digital communications let us take pause to remember Claude Shannon born April 28, 1916.

73,

Rick Muething, KN6KB

What Contest Am I Hearing?

Every weekend, and often other days of the week, there is some contest on some band. The questions are, which one is it, what if I want to participate, what are the times and frequencies?

It's easy to find out what's going on. All your questions and more will be answered by going to the following website called the WA7BNM Contest Calendar.

<http://www.hornucopia.com/contestcal/weeklycont.php>

The ARRL publishes a contest calendar in a different format.

<http://www.arrl.org/contest-calendar>

If you want to avoid contests all together, the WARC bands of 60, 30, 17, and 12 meters are contest-free bands.

Xubuntu: Programming radio channels with CHIRP

My previous article was about installing FLDIGI. This time it's about how to install software that can simply program your hand terminal's or other radio's channel memories. For example, to manually program your transceiver with emergency channels in the desired order can be quite time consuming. Especially it will take a lot of time when you have multiple handsets, base stations and mobile transceivers to program. Fortunately, programming a number of rigs can be made simpler with a standardized program and dedicated rig programming cables.

Dan Smith's software, called CHIRP, performs rig programming. It can basically program a rig's memory channels with alpha name (if supported by rig), frequency, simplex/half duplex mode, pilot tone, modulation type and transmit power. That works the same for all supported rigs, so any rig's channel memories could be programmed with the same emergency channels, in the same order, using the same names.

The advantage of Dan's program is that it supports a huge amount of popular transceivers like:

Baofeng

UV-3R, UV-5R, UV-82, UV-B5, UV-B6

Icom

IC-80AD, IC-2820H, ID-800H, ID-880H, IC-208H, IC-2200H, IC-91/92AD, IC-V/U82, ID-RPx000V/RP2x, IC-2100H, IC-2720H, IC-T70, IC-T7H, IC-T8A, IC-Q7A, IC-W32A, IC-746, IC-7200, IC-7000, ID-31A, ID-51A

Kenwood

TH-D7A/G, TH-D72, TH-F6A, TH-F7E, TH-G71A, TH-K2, TK-7102/8102/7108/8108, TM-271A, TM-281A, TM-D700, TM-D710, TM-G707, TM-V7A, TM-V71A

Yaesu

FT-60R, FT-90R, FT-817/ND, FT-857/D, FT-897, FT-1802M, FT-2800M, FT-7800R/7900R, FT-8800R, FT-8900R, FTM-350R, VX-170, VX-2R, VX-3R, VX-5R, VX-6R, VX-7R, VX-8R

Wouxun

KG-UVD1P/UV2D/UV3D, KG-UV6D/UV6X, KG-UV8D

Xubuntu. In the previous newsletters I already described:

- 1) Choosing and installing an application with the Ubuntu Software Center
- 2) Installing an application from the Xubuntu terminal
- 3) Downloading an application from the Internet and installing with the Ubuntu Software Center
- 4) Installing an application from a Private Package Archive (PPA)

```
sudo apt-add-repository ppa:dansmith/chirp-snapshots
```

```
sudo apt-get update
```

```
sudo apt-get install chirp-daily
```

To make sure Xubuntu will keep refreshing with the latest version of CHIRP every time there is one available, you will add a link to a so called Private Package Archive (PPA). In this case the PPA is: **dansmith/chirp-snapshots**.

To use this archive, click on the mouse's face on the top right of the Xubuntu desktop. Then type "Terminal Emulator" and click on its appearance. When the terminal emulator has opened you can add the archive, type:

"sudo add-apt-repository ppa:dansmith/chirp-snapshots" enter

When this is finished you have to update all Xubuntu's archives, type:

"sudo apt-get update" enter

And finally you can install Ffigi, type:

"sudu apt-get install chirp-daily" enter

In general, the rig is connected to the PC with a serial cable. Xubuntu, and Linux in general, must enable access to serial devices regardless whether it is a serial port or a USB port that emulates a serial port. To do so, click on the mouse's head on the top right of the desktop. Then type "Terminal Emulator" and click on its appearance. When the terminal emulator is open, type

"sudo adduser your_username dialout" enter

To activate this serial support, please logout your current Linux session and login again.

Now CHIRP is ready to use. You can start it from your main menu.

Here is a screen shot starting the download configuration of an FT-60 on the first serial port (/dev/ttyS0). Note if you use a USB to serial converter, the first (emulated) serial port appears as /dev/ttyUSB0. A big advantage is that you do not need to install drivers or worry about specific driver versions!



Have fun with Xubuntu!

73 de KK6LMJ

May, 2016

General Information about the Conejo Valley Amateur Radio Club, CVARC

CVARC is a Special Service Club (SSC)

The Conejo Valley Amateur Radio Club is an ARRL affiliated Special Service Club. To be recognized by the ARRL as a Special Service Club, the club must regularly show that it is actively involved in certain areas, including: New Ham Development and Training, Public Relations, Emergency Communications, Technical Advancement, and Operating Activities.

Meetings and Location

Meetings are held on the third Thursday of every month, except December. The meeting location is the Community Room at the East County Sheriff Station, 2101 E. Olsen Road, Thousand Oaks. Meetings start at 7:30 p.m. with a pre-meeting social and technical assistance session beforehand or as announced. Meetings are open to the public, and members are encouraged to bring friends.

Visitors are always welcome at our monthly meetings, and we do not pressure newcomers to join. If, however, you would like to support the club and its activities by becoming a member then we will be pleased to have you join.

CVARC Membership Rates

The simplest way to join (or to renew) is to give a check bearing your name and address to the Treasurer in person or by mail. Make the check payable to "CVARC" and please put your call sign and email address on the memo line.

Current annual rates are changing during the next year. The following rates apply but will change: Regular Membership \$25. Family Membership \$30. Special discounts are available for new members (licensed in the last 12 months) \$10. Full-time Students \$10. Regular members renewing for multiple years \$20/year. Family members renewing for multiple years \$25/year. Email info@cvarc.org for pro-rated dues figures for renewals between June and April, 2017.

An application to join is found on the club website.

Name, call sign, or address changes may be e-mailed to the Treasurer.

QUA CVARC

"QUA CVARC" is the club newsletter published monthly, not later than the Monday preceding the CVARC club meeting, by the Conejo Valley Amateur Radio Club, AA6CV, PO Box 2093, Thousand Oaks, CA 91358-2093.

Opinions expressed in articles in this newsletter are those of the authors and do not necessarily represent the views of the club, its board, or its members.

Tax Deductible Donations to CVARC

CVARC is an IRS-certified 501(c)3 charitable organization and donations are deductible pursuant to IRS rules. If you have working radio equipment or ancillary equipment that you can and wish to donate to the club, please contact one of the board members and we will be happy to talk to you about the process to help fund and grow CVARC.

We cannot accept certain donations, and have to place some restrictions on them such as, no hazardous materials, nothing we could not sell, etc. If you are interested in donating, contact any board member at a meeting or via email.

Many companies will either grant or match employee's gifts to non-profit organizations like CVARC. Please determine if your company is among these and contact a board member for more details.

CVARC Officers

For the current list of CVARC officers together with their contact information, please visit the club's web-site at <http://www.cvarc.org>. You may view past newsletters on the website.