



Publication of the  
Northern California  
Contest Club



Issue 531

August 2016



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## President's Report

The serious contest season is about to start! Now, I'm not down-playing All Asian, the summer NAQP's, IARU, etc., but you all know what I mean.

This is it. This is the time those station changes need to be finalized. New rigs installed. New accessories installed. Antenna repairs done and new antennas installed. As I write this, CQP is just a bit over a month away, and we all know that CQP is the official start of the contest season.

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## NCCC Next Meeting



### NCCC BBQ

Sunday September 18th

QTH Ken, N6RO, Oakley

[Details on Page six](#)

The antennas at my station are in pretty good shape and seem to play pretty well. I do want to get one more tri-band beam installed on tower #2 before CQP. The slope my QTH is on is so steep that a 30 foot difference in antenna height can make the difference between hearing and working a station or not hearing/working the station. That means multiple antennas at different levels on the towers. Sometimes you hear a station best on the higher antenna and sometimes the station will come in better on the lower antenna. W6SR has also suggested a 40 meter wire antenna that will give me some gain and supplement the other 40 meter antennas on the property.

Continued on page 3



## Officers:

President	Bob Hess	W1RH	w1rh@yahoo.com
Vice President /Contest Chair	Steve Dyer	W1SRD	w1srd@arrl.net
Treasurer	Dick Wilson	K6LRN	treasurer.nccc@gmail.com
Secretary	Ian Parker	W6TCP	secretary.nccc@gmail.com
Past President	Rick Karlquist	N6RK	richard@karlquist.com
Director	Rusty Epps	W6OAT	w6oat@sbcglobal.net
Director:	Rich Cutler	WC6H	wc6h@yahoo.com
Director:	Ron Castro	N6IE	ronc@sonic.net

## Volunteers:

New Member Mentor	Al Rendon	WT6K	wt6k@arrl.net
Charter Member	Rusty Epps	W6OAT	w6oat@sbcglobal.net
Awards Chair	Joanna Dilley	K6YL	joanna.k6yl@gmail.com
CQP Chair	Kevin Rowett	K6TD	k6td@arrl.net
CQP Certificates	John Miller	K6MM	k6mm@arrl.net
K6ZM QSL Manager	George Daughters	K6GT	k6gt@arrl.net
K6CQP,N6CQP,W6CQP QSL Mgr	Ed Muns	W0YK	w0yk@arrl.net
NCCC Email reflector Admin	Phil Verinsky	W6PK	kb-w6tqg@verinsky.com
Webmaster	John Miller	K6MM	k6mm@arrl.net
Webinars	Chris Hoffman	KG6O	choffma@gmail.com
JUG Editor	Ian Parker	W6TCP	w6tcpian@gmail.com
jug@nccc.cc			



### NCCC Net

Thursday 8 PM  
 Freq: 3.610 +/-

### NCCC

Visit the meetings page of the NCCC website [here](#) for details of the next meeting

## NCCC Membership Information

If you wish to join NCCC, you must fill out an [application for membership](#), which will be read and voted upon at the next monthly meeting. ([PDF application form](#))

To join, you must reside within [club territory](#) which is defined as the maximum of:

- Northern California, anything north of the Tehachapi's up to the Oregon border, and
- A part of north-western Nevada (anything within our ARRL 175-mile radius circle centered at 10 miles North of Auburn on Highway 49).

It is always my hope that we will get a good rain storm just prior to CQP. Besides reducing the fire danger, it means that insulators will be cleaned off, air conditioners will be turned off, agricultural well pumps may be shut off, etc. In short, the electrical noise magically goes away. Should we not get a good drenching, my new Flex 6700, and its terrific ability to mitigate noise, should greatly help the noise problems that can plague a station like mine which looks down on a valley below that also probably includes lots of grow lights.

Speaking of CQP, have you registered your county yet? So far, I count 25 registered counties on the map. We need more and we will have all 58 counties active. Be sure to register sooner rather than later, so the rovers and contest dxpeditions can see what counties to focus on. Thanks to K6MM and N6TV for keeping the county plan updated daily.

As far as the serious contests go, following CQP is CQWW SSB, on October 29th. While not a focus contest, the CQWW and ARRL DX contests can really help your standing in the NCCC Club Competition.

Awards for the Club Competition will be KB awards, as we have done in the past. Plaques and certificates will be awarded for achieving certain point levels. This is a really good way for the DX'ers in our club to be awarded for their contesting efforts as well as those who enjoy the domestic contests. I'm really looking forward to next year's award banquet so we can recognize all of our point generators including the DX contesters.

Yesterday, it was my pleasure to, again, attend N6XI's annual "Sierra Chapter" BBQ. Rick and Ann, as usual, were gracious hosts. We had a good crowd which included several XLY's. Besides the great burgers, dogs, deserts, and brews, there was also good conversation. CQP, antennas, radios, projects, club ideas, etc. This is really one of the premier, yet unofficial, events that happens every year in our club. Let's hope Rick and Ann continue the tradition. If you haven't yet attended, be sure to consider the drive to the high country next year. You won't be disappointed!

Oh, and when you're sitting down with a brewsky and other KB'ers at N6XI's place, you never know what you might find out about your fellow members. Ian, for instance, let us know that his call sign, W6TCP, goes along with his initials and his job. "TCP" - "IP".....get it?

The second annual NCCC BBQ will be held at N6RO's place this year. If you attended the BBQ at WC6H's place last year, we're pretty much following the same format. A large tent will be installed with plenty of tables and chairs under it. Food will be catered by Dickies BBQ. As with last year, the radios will be going as we will be operating a casual M/M in the Washington State Salmon Run. I'll note that we will also be honored by a visit from W6SX, who will make the serious trip from the land of the Mammoth Lakes to the East Bay. We rarely get to see Hank, so there's another good reason to join us at the BBQ!

Besides Ken, N6RO, who is making his QTH available for the big bash, I want to thank K6LRN, W6TCP, K6MM, and NA6O for their help in making all of this happen. Gary, NA6O, especially, has been assisting in making the specific location for the tent just right for us.

At my first meeting, as NCCC President, Ed, W0YK, asked me if I would have the new Board consider the possibility of life membership. We had so many items on our agenda last year that I put off Ed's request, but I didn't forget it.

After some discussion, the Board has voted to accept requests for life membership, at a one-time-only cost of \$250. I am please to announce that Ed, along with Steve, W1SRD, have become our first NCCC life members.

If you would like to sign-up for life membership, contact Ian W6TCP and he will send you the link for you to complete the online form. All requests will go in front of the board for approval.

I want to thank everyone who has signed up for Member Planet and paid their dues. Our dues drive is well ahead of last year's drive and we expect to exceed the number of dues-paying members we had last year, which was well ahead of the previous year.

Ian, who's arm I twisted to take on the club secretary position, has done an exceptional job for the club. I can't thank Ian enough for continuing on with the great job Joanna, K6YL, did in cleaning up the membership list. KB'ers, this is a thankless job, but something that needed to be done. Before Joanna got started, the spreadsheet had nearly 800 members listed. Some had lost interest, many were silent keys, and others had moved out of the area. Honestly, we were not sure just who we had in the club.

The hard-working folks who run the club and volunteer for office positions or are committee members are just that.....volunteers. This includes everyone from Ian, the club secretary, to Phil, W6PK, the manager of our reflectors. It is a lot of hard work and perhaps the most difficult job in the club has been managing the membership list. For that reason, Ian sought out the possibility of outsourcing the duties of membership management. He looked at several companies, and sold the Board on Member Planet. We're very happy with the way things are going so far, and the rising number of dues-paying members clearly shows positive results for the club. There's still lots more to do. Phil will be cleaning up the reflectors soon, removing a lot of names/calls, who are no longer members of the club.

See you all in Oakley for the BBQ!

Bob W1RH



[See page 6 for details](#)

# Recording Contest Audio

## Bob Wolbert, K6XX September 2016

### Part II—K3 Radio Configuration

Summary: Part II isn't necessary! New firmware automatically enables this functionality. But here's the rest of the story.

A year ago, I pushed the Elecraft firmware team to provide a better way of recording both sides of contest QSOs so that the K3 could easily meet the CQWW mandate. Receive-side recording was already available via the LINE OUT jack on the K3 and K3S radio's rear panel, but transmit monitor audio was susceptible to misadjustment from the front panel controls. Elecraft's DSP programmer quickly provided a command that enabled fixed-level transmit monitoring, but the user-interface programmer faced problems introducing a menu item for setting this level. The default transmit level was initialized on every power-cycles, and this level was zero. Not very useful.

A DSP programming command was provided. When a special sequence "!4Dnn" is sent to the K3, the transmit monitor level on LINE OUT is fixed. The variable nn represents the output level from 00 (off) to hexadecimal "FF" (maximum). This amplitude was independent of the front panel MON control, meaning that a recorder connected to LINE OUT receives proper levels for quality recording. Unfortunately, this command must be sent every time the radio was turned ON if recording was desired.

Since I log with TR4W, this merely represented a minor annoyance: TR4W provides over 60 function keys, any one of which could send a serial command to the radio. There now was one more thing to remember when setting up for a contest (and any time the radio was turned back ON, of course). But others didn't have it so easy. I leaned on our in-house logging program experts, N6TV for WinTest and K6MM & N6ML for N1MM Logger, to determine some easy way to send the command from their favorite logging programs. Bob quickly came back with a WinTest LUA script performing the chore. But John and Iain were stuck: N1MM Logger has few available function keys that should be used for messages, not squandered for rarely-used functions. I thank Bob, John, and Iain for their efforts.

The most reasonable way for N1MM Logger users to enable this command was via a separate terminal program or the Elecraft K3 Utility. The !4Dnn command would be sent before N1MM Logger itself was started, then the terminal program or K3 Utility must be closed to relinquish the serial port. Functional, but very annoying. Determining a better solution for all operators caused the long delay since Part I was published.

Finally there is good news for K3/K3S operators wishing to record their contest audio. The latest K3 firmware, version 5.51, provides an adequate default transmit monitor level that meets our needs without sending any serial commands to the radio. Simply load the firmware and your rig is ready to go—the !4Dnn command still works, but it is now unnecessary.

This new firmware has been used in contests and it does the job. Recordings are clean and of proper level. The CQWW recording requirement is met or exceeded with the independent recorder system described in Part I (see the March 2016 JUG), allowing unattended continuous operations for 48 hours. Since PC sound cards are not used, station hardware need not change when operating different modes.



**SUMMER  
BBQ**

# Radio Oakley - N6RO

5480 Sellers Ave  
Oakley, CA 94561-3612



## **Time**

12/Noon Social Hour; 1:00 pm Lunch

## **Payment**

Payment of \$20 person or \$30 if you bring XYL / YL / Partner. Payment can be via the club's PayPal account (paypal@nccc.cc) or at the event with hard cash.

Please confirm your attendance to Ian W6TCP w6tcpian@gmail.com  
by End Of Day Thursday 15th September !

## **Grub provided by:**

Dickeys BBQ Pit / Vegetarian option will also be available.

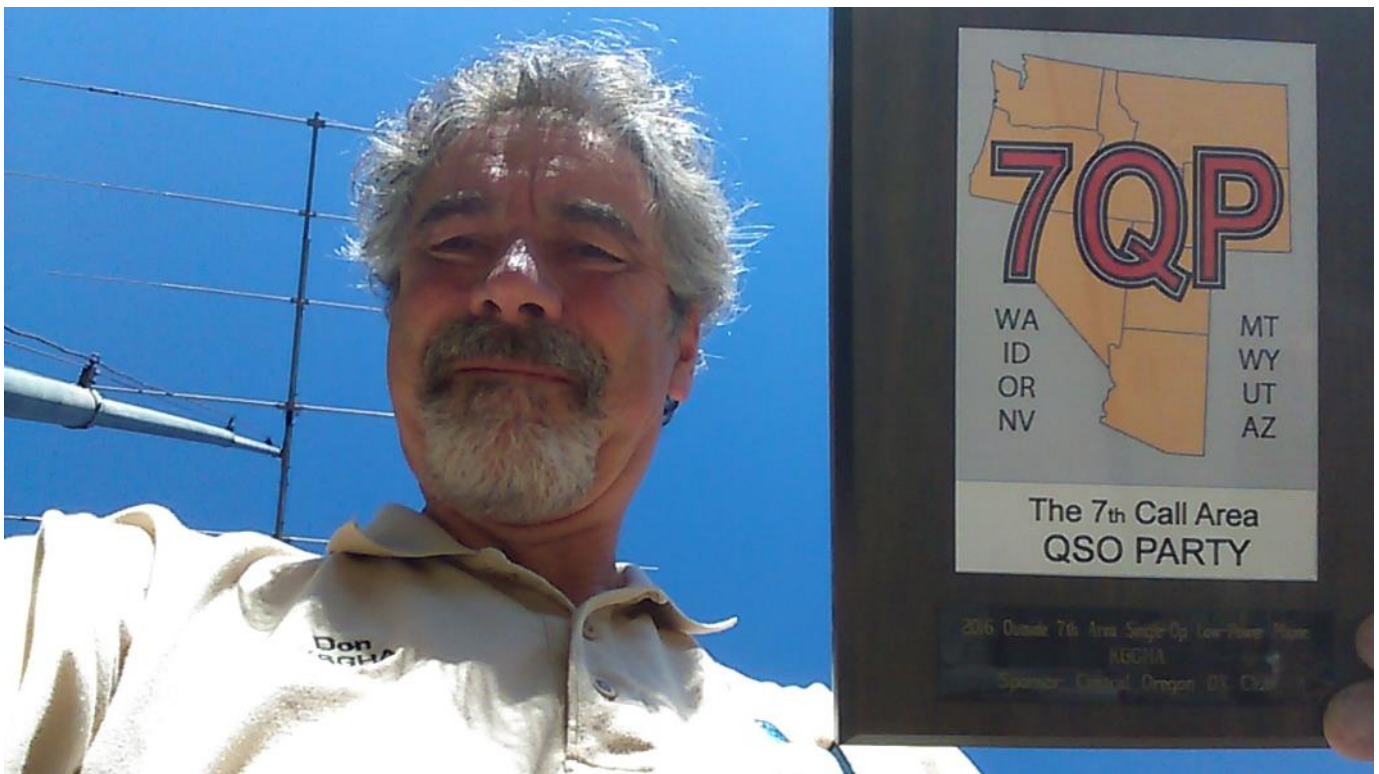


Please car pool if possible. See the maps for details <http://nccc.cc/meetings.html> for parking information @ N6RO

# Membership Lumber



## 2016 7QP First Place, Non-7 Single Op, Low Power Phone award—Don K6GHA



I honestly can say this is one of the most fun and friendly contests because it offers a wide number of states, counties, and mobile chase options that keeps the weekend really hopping! Great planning, operation, and support puts the 'fun' in this contest weekend.

Thanks to all the 4 county line sitters and the mobile operators who activate most of the counties. And again, thanks to the CODXC for the hardware! It is on the wall!

Don K6GHA

# Membership Lumber

The NCCC logo consists of the letters "NCCC" in a bold, white, sans-serif font, centered within a black oval shape. This oval is set against a solid orange rectangular background.

**Georgia QSO Party  
First Place High Power US/VE  
Mixed Mode—Jim K9YC**







Joint meeting of NCCC, PL259, REDXA and MLDXCC took place on Saturday 30th July Rockville Corners in Fairfield.

The following attended joint meeting:

AA6K, AF6HC, AI6JZ, K6JAT, K6KNS, K6LRN, K6SCA, K6TKD, K6XC, KA6MEL, KD6MOO, KD6WKY, KG6O, KH6GJV, KI6WDX, KI6YYT, KK6DF, KR6N, N6DQ, N6IE, N6JS, N6KLS, N6RK, N6RO, N6XI, NA6O, NJ6G, NW6P, W1RH, W1SRD, W6RGG, W6SR, WA6NHC, WB6BET, WC6H, WD6EIW, WX6S and NR6Q plus several by Webex.

As this was not a business meeting as such & as I was the only 'secretary' present, I took a few notes. There may have been some business or announcements that I missed as we arrived late thanks to I-80's inability to handle a volume of autos.

There was a buffet lunch of Chicken Alfredo, a pasta dish with a Marinara sauce, salad, rolls and coffee.

President Bob of NCCC presided and started by passing microphone so we could announce our presence.

There were comments by Pres. Shirl of MLDX/CC regarding CQ's DX Marathon & SS. Ron N6IE spoke for REDXA talking about Field Day.

Bob Vallio W6RGG gave an interesting talk about 'Voodudes' and their operations from Africa & Kuwait.

Tom K5RC spoke via the Webex connection outlining ideas for a new contest involving Maidenhead grid squares.

After a break Steve W1SRD gave a talk on the TX3X operation from Chesterfield Reef.

Dick K6LRN

## Sierra Chapter BBQ August 28th 2016



Rick N6XI and Ann KD6MOB hosted the 2016 Sierra BBQ on Sunday, August 28 among great company, outstanding scenery and fantastic takeoffs on the bluff overlooking Boca Reservoir! It doesn't get any better!

BBQ Attendees were:-

N6XI Rick + KD6MOB Ann, K2RD Ira + Toby, K6DGW Fred, K9JM Jim, W6TCP Ian, W1RH Bob + Karen, K6RB Rob, KH2TJ Todd, WA6ZTY Mike, K6EU Tom, NJ6G Dennis + XYL Vina K6VNA AF6SA Stefan + KK6VIX Alex, W6SR Rick + Karen, WB6CZG Bill, K7XC Tim + Rosie K6ST Barry, K6NV + Lois

Photos Rick N6XI & Ian W6TCP



Tom K6EU & Rob K6RB

Rick N6XI, Dennis NJ6G, Mike AF6SA Stefan AF6SA & Alex KK6VIX



Nice Antennas >



Below

Bob W1RH EI president  
Stefan  
Alexander





© Rick Tavan



© Rick Tavan



© Rick Tavan



© Rick Tavan

## Mount Diablo Chapter 228

The newly formed Mount Diablo Chapter 228 held its first meeting on July 2, 2016. The chapter meets at 11:00 a.m. on the fourth Saturday of every month at Legends Restaurant, Diablo Creek Golf Course, 4050 Port Chicago Highway, (at Highway 4), Concord, CA. We welcome all QCWA members, with or without local chapter affiliations. Our membership chairman is Art Lebermann, W6REQ, [artleb@earthlink.net](mailto:artleb@earthlink.net), (415) 748-8266. He is happy to hear from any interested persons and would place you on our email list for information of future meetings and other chapter activities.

Ron, K6XC

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### Northern California Contest Club Reflector—Guidelines

This reflector is devoted to the discussion of contesting.

This includes contests, station building, dxpeditions, technical questions, contesting questions, amateur radio equipment wants/sales, score posting, amateur radio meetings/conventions, and membership achievements.

This does not include personal attacks, politics, or off-subject posts which will be considered a violation of the Guidelines.

Violations may result in removal of the violator from the reflector and possibly from club membership in good standing.

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### Member Planet

Transition to member planet is underway. If you haven't completed the sign in process please do so as soon as you can. If your unable to find the invite, please contact Ian W6TCP at [w6tcpian@gmail.com](mailto:w6tcpian@gmail.com)

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### JUG Articles Wanted!

Without your help we cannot reproduce a quality newsletter so please consider submitting a suitable article!

We welcome any and all relevant articles for inclusion in the JUG.

Deadline is 7 days before month end. Preferred format is MS Word, Arial 12 point and pictures should be full resolution. Send your material to Ian, W6TCP at [w6tcpian@gmail.com](mailto:w6tcpian@gmail.com) Don't worry

# Point Generator Profile

By Bob, W1RH

Our featured Point Generator this month is Tyler, K6TLR. Tyler is a very new ham, but a serious up and coming contester. He has yet to reach the old age of 30, yet has proven himself to be a RTTY and SSB contester who can also operate SO2R and stay in the chair for extended periods.

Tyler notes that he is a serious tennis player. I'll also note that he is a serious rafting guide who regularly navigates the rapids of the South Fork of the American River for tourists from all around the world. Anyone for a NCCC raft trip?

Let's meet Tyler:

**Name/Call Sign:** Tyler Laursen - K6TLR

**Past calls:** K1TLA and KK6ZFZ

**Location:** Rancho Cordova, CA CM98io

**How much property do you have?** None. Haha, small, 2 story condo in an antenna restricted HOA

**Describe your antenna system:** 20m centered dipole resonant at 14.075. It is strung up between 2 10'6" masts hose clamped to rooftop satellite dish stands. Just adding the finishing insulator ends to a 20m, 17m, 15m fan dipole that will be put up in its place very soon.

**Current:** See above .

**Future:** I plan on becoming best friends with WC6H and W1RH and taking over their antenna systems in a gambling transaction :) ORRRRRR I will just buy some property and put up a similar system to theirs.

**What's in your shack?** Yaesu FT920 that I picked up from a hamswap... and a computer. All I need is a 1.5kw amp so that I can wipe out 15 condos' TV signals during CQP.

**What are your previous QTH's?** I grew up in Tulare and Visalia... which turns out is a popular ham destination that I knew nothing of until meeting W1RH. Moved to Sacramento for school at Sac State. Graduated with a degree in Rhetoric and Non Verbal Communications. Currently in Rancho.

**If you're working, what is your career? If not, what was your career?** I am in the tennis industry. I currently manage and run a little bit of everything at Courtside Tennis & Apparel. I also have a passion for ham radio, building stuff, and offroading in my Tacoma.

**Married? Kids? Grandkids?** Nope. None of the above. This gives me more time for contesting :)

**How many DXCC entities have you worked?** I have had my general for a little over 4 months. Only really got on the air and transmitting in June. Since then I have worked 38 states and 11 DXcc entities. If I can hit Lithuania, China, Slovenia, and Slovakia with my setup... I can't wait to see what else I can reach!

**What's your favorite contest?** I have only worked 4 contests so far: NAQP RTTY, NAQP SSB, Rookie Roundup, IARU. NAQP RTTY is probably the most notable for me. It was my first ever con-

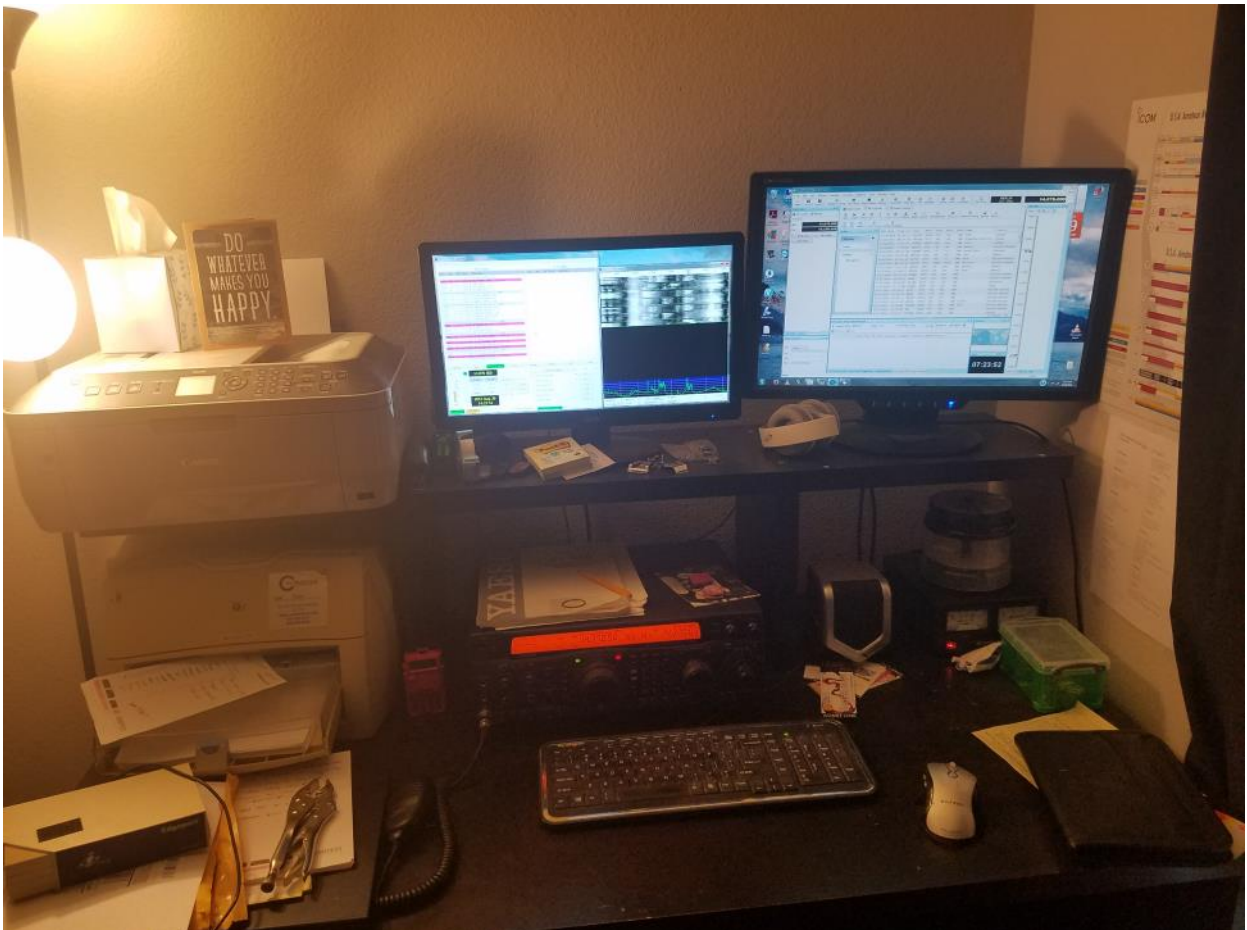


test, and I picked up on it very quickly... I even figured out how to SO2R while W1RH was out wine tasting. I didn't realize that was a thing and thought I had figured out something new haha. The NAQP SSB was a blast as well. W1RH and I had his house setup for Multiop 2 transmitters. We had writelog networked together so we could see how each of us were doing. We were able to get our rate up around 175/hr for a couple of the hours there. I wish that contest ran longer. I am now really looking forward for CQP!

**Any tips for contesters?** Find someone to help be an elmer to. I would be nowhere near as interested in the hobby if I had to struggle through everything on my own. W1RH has helped me immensely. Encourage new hams to come to your stations if you have a nice setup and let them experience what it is like to run high rates. It really does get the adrenaline going and is one of the main reasons I now have an urge to keep contesting. Huge thanks to WC6H and W1RH for letting me come and be apart of contests at their stations!!

**What would you like to see changed in NCCC?** I don't know. I have only been a ham since November 2015. All I know about the NCCC is what W1RH has told me, and I think he might be a little biased.

**Any other hobbies besides ham radio?** I spend a LOT of time playing tennis. I am a 4.5 rated player. I won the year end #1 doubles 4.5 ranking in Northern California in 2015. I also played on a men's nationals 4.5 team the same year. I have a huge competitive drive and strive to win every time I step on the court. For leisure, I like to go playing in my truck. It is a 07 Tacoma TRD Sport crew cab and long bed. Lifted 4" with 35" mud terrains, and full recovery gear, and, of course, a yae-su ft5200 (about to be upgraded to a TYT 9800 and an APRS transmitter... complete with a small whip antenna farm on the roof).





# 2016 CQ WPX RTTY Contest

USA Club Competition plaque won by NCCC



# Howdy! Welcome to the 2016 SLVARC Auction!



This page contains up-to-the-minute (well, maybe a few days old) information about the upcoming auction of radio equipment and other goodies to benefit the San Lorenzo Valley Amateur Radio Club. Be sure to read the Important Auction Information below, and check back regularly to see what goodies will be going on the block.

Latest Update: 30 August 2016

## Got something to donate?

If you would like to donate equipment or other items for the auction, please contact me directly at: <mailto:ke1b@richseifert.com>. The best way is to email a photograph along with a brief description of the item(s) you would like to donate, plus your best estimate of:

(a) What the item is worth (check eBay or the like for recent sales of similar items if you really have no idea), and

(b) What is the minimum amount that you want the club to get for the item (i.e., the price below which you wouldn't have donated it).

Please don't forget to look through your stuff for that rare gem that you *know you won't be using, and that someone else would really want.*

## **Important Change for 2016!!**

For the first time in history, there will be NO TELEPHONES auctioned this year. You are now entering the NO-PHONE-ZONE!

All items will be sold for at least the minimum amount you specify (the “reserve price”) or they will be returned to the donor. If you don't care about a minimum bid, it will be auctioned for whatever we can get.

The "Quality Review Board" will decide whether donated items are better classified as "e-Waste", and not suitable for auction.

### **Want to bid but can't make it to the auction?**

If you want to bid on an item without coming to the meeting, contact me directly at <mailto:ke1b@richseifert.com> to arrange a pre-specified, sealed maximum bid. Your bid will win the item if the real-time bids do not exceed your pre-bid (a la eBay). You will get the item at a lower price than your pre-bid if the real-time bids do not go that high.

### **IMPORTANT AUCTION INFORMATION!!**

1. The auction will be held Friday, October 7, 2016, at the regular SLVARC meeting at 7:30 p.m. at the Zayante Fire Station on Zayante Road in Felton.
2. All items listed below will be auctioned; there may be additional, last-minute items also available. This list will be updated regularly as items are donated prior to the auction.
3. All items being auctioned have been donated for this purpose by their owners. No partial donations, commissions, or consignment sales are allowed. All funds raised by the auction will go into the SLVARC general account, to be used for club-approved activities.
4. Some items may have a “reserve price”, i.e., a price below which the donor is not willing to part with the item. The reserve price is known only by the donor and the auctioneer. Items that do not receive the reserve price at the auction will be returned to the donor.
5. All items must be paid for at the time of the auction, by cash or check. Credit cards cannot be accepted. No trade-ins or swap offers will be considered in lieu of payment. Payment by IOU or PayPal transfer *may be accepted from club members in good standing, with appropriate collateral (e.g., a firstborn child)*. A “tab” may be run during the auction so that multiple items can be paid for with a single check at the end.
6. All sales are final. No refunds, returns, or exchanges will be made, either to the club or the item's donor.
7. All items are sold AS-IS, WITH ALL FAULTS. No warranty is made, expressed or implied, including warranty for suitability for any particular purpose.
8. All tangible items will be available for inspection at the auction.
9. The order of items displayed below may not be the same as the order in which they are offered at the auction.

[Here is the link for the Catalog](#)

# TUBE OF THE MONTH

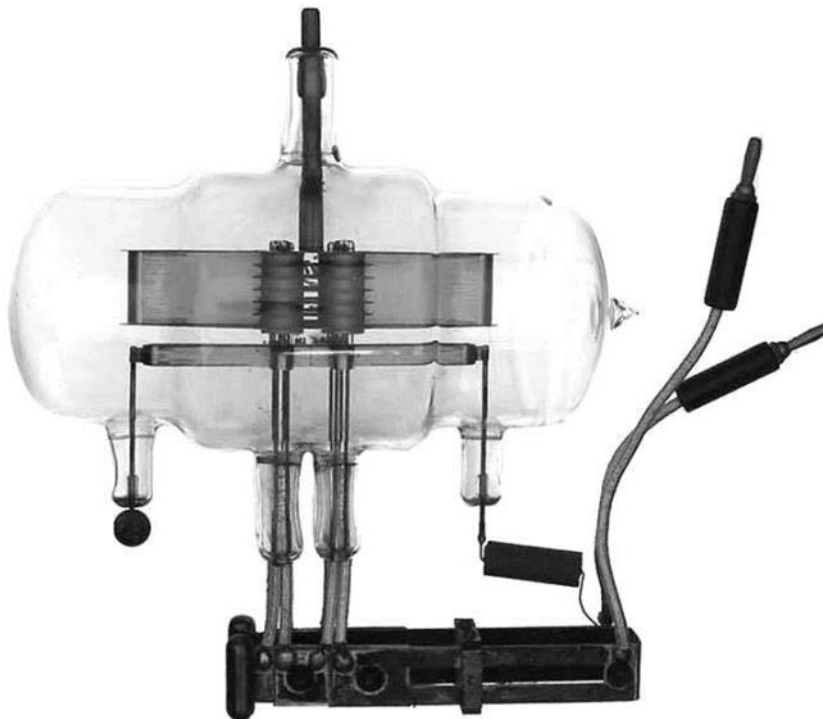
Visit the museum at [N6JV.com](http://N6JV.com)

Norm N6JV

## VT-158

Early high power RADARs during WWII were relatively low frequency. Ring oscillators were made using several specially designed triodes and would work at about 200 MHz. This was very high frequency for the early 1940s. These units were very large and not very portable. The need for more portable RADAR units for the Army had the research department at Fort Monmouth, NJ dedicated to the problem. Major Zahl developed the idea of building a single tube that would combine the power of multiple tubes in the same envelope. This was nothing new except for the size and the incorporation of tuned lines as part of the unit. Prototypes were made and tested and eventually the new tubes designated the VT-158 were produced by Eimac, Machlett and H&K.

The early low frequency RADAR units were easily jammed by the enemy. There was a race on by both sides to get higher power at higher frequency that the other side couldn't jam. New equipment was quickly obsolete. The VT-158 operated at 600 MHz so was a big jump in frequency. By the time it was fielded in the AN/TPS-3 RADAR, new equipment was already making it obsolete. This unit had a pulsed output of 240 KW and was triggered by a rotary spark gap. The tube was mounted in a wooded box so the operator was getting cooked as well as shot at.





# Contest Calendar— September page 1

NRAU 10m Activity Contest	1700Z-1800Z, Sep 1 (CW) and 1800Z-1900Z, Sep 1 (SSB) and 1900Z-2000Z, Sep 1 (FM) and 2000Z-2100Z, Sep 1 (Dig)
QRP Fox Hunt	0100Z-0230Z, Sep 2
NCCC RTTY Sprint	0145Z-0215Z, Sep 2
NCCC Sprint	0230Z-0300Z, Sep 2
G3ZQS Memorial Straight Key Contest	2300Z, Sep 2 to 2300Z, Sep 4
Russian RTTY WW Contest	0000Z-2359Z, Sep 3
CWOps CW Open	0000Z-0359Z, Sep 3 and 1200Z-1559Z, Sep 3 and 2000Z-2359Z, Sep 3
All Asian DX Contest, Phone	0000Z, Sep 3 to 2400Z, Sep 4
Wake-Up!QRP Sprint	0600Z-0629Z, Sep 3 and 0630Z-0659Z, Sep 3 and 0700Z-0729Z, Sep 3 and 0730Z-0800Z, Sep 3
RSGB SSB Field Day	1300Z, Sep 3 to 1300Z, Sep 4
IARU Region 1 Field Day, SSB	1300Z, Sep 3 to 1259Z, Sep 4
AGCW Straight Key Party	1300Z-1600Z, Sep 3
Colorado QSO Party	1300Z, Sep 3 to 0400Z, Sep 4
PODXS 070 Club Jay Hudak Memorial 80m Sprint	2000Z, Sep 3 to 2000Z, Sep 4
WAB 144 MHz QRO Phone	1000Z-1400Z, Sep 4
DARC 10-Meter Digital Contest	1100Z-1700Z, Sep 4
Tennessee QSO Party	1800Z, Sep 4 to 0300Z, Sep 5
MI QRP Labor Day CW Sprint	2300Z, Sep 5 to 0300Z, Sep 6
ARS Spartan Sprint	0100Z-0300Z, Sep 6
Phone Fray	0230Z-0300Z, Sep 7
CWOps Mini-CWT Test	1300Z-1400Z, Sep 7 and 1900Z-2000Z, Sep 7 and 0300Z-0400Z, Sep 8
UKEICC 80m Contest	2000Z-2100Z, Sep 7
NCCC RTTY Sprint	0145Z-0215Z, Sep 9
NCCC Sprint	0230Z-0300Z, Sep 9



# Contest Calendar— September page 2

Kulikovo Polye Contest	0000Z-2359Z, Sep 10
FOC QSO Party	0000Z-2359Z, Sep 10
WAE DX Contest, SSB	0000Z, Sep 10 to 2359Z, Sep 11
SARL Field Day Contest	1000Z, Sep 10 to 1000Z, Sep 11
SKCC Weekend Sprintathon	1200Z, Sep 10 to 2400Z, Sep 11
Russian Cup Digital Contest	1500Z-1859Z, Sep 10 and 0600Z-0959Z, Sep 11
Ohio State Parks on the Air	1600Z-2400Z, Sep 10
ARRL September VHF Contest	1800Z, Sep 10 to 0300Z, Sep 12
North American Sprint, CW	0000Z-0400Z, Sep 11
Swiss HTC QRP Sprint	1300Z-1900Z, Sep 11
Classic Exchange, CW	1300Z, Sep 11 to 0800Z, Sep 12 and 1300Z, Sep 13 to 0800Z, Sep 14
Phone Fray	0230Z-0300Z, Sep 14
CWOps Mini-CWT Test	1300Z-1400Z, Sep 14 and 1900Z-2000Z, Sep 14 and 0300Z-0400Z, Sep 15
RSGB 80m Club Sprint, SSB	1900Z-2000Z, Sep 14
NCCC RTTY Sprint	0145Z-0215Z, Sep 16
NCCC Sprint	0230Z-0300Z, Sep 16
AGB NEMIGA Contest	2100Z-2400Z, Sep 16
ARRL 10 GHz and Up Contest	0600 local, Sep 17 to 2400 local, Sep 18
SARL VHF/UHF Analogue/Digital Contest	1000Z, Sep 17 to 1000Z, Sep 18
Scandinavian Activity Contest, CW	1200Z, Sep 17 to 1200Z, Sep 18
All Africa International DX Contest	1200Z, Sep 17 to 1200Z, Sep 18
SRT HF Contest SSB	1300Z, Sep 17 to 1300Z, Sep 18
QRP Afield	1600Z-2200Z, Sep 17
New Jersey QSO Party	1600Z, Sep 17 to 0359Z, Sep 18 and 1400Z-2000Z, Sep 18
New Hampshire QSO Party	1600Z, Sep 17 to 0400Z, Sep 18 and 1600Z-2200Z, Sep 18
Washington State Salmon Run	1600Z, Sep 17 to 0700Z, Sep 18 and 1600Z-2400Z, Sep 18
Feld Hell Sprint	1800Z-1959Z, Sep 17





# Contest Calendar— September page 3

North American Sprint, RTTY	0000Z-0400Z, Sep 18
BARTG Sprint 75	1700Z-2100Z, Sep 18
Run for the Bacon QRP Contest	0100Z-0300Z, Sep 19
144 MHz Fall Sprint	1900 local - 2300 local, Sep 19
Phone Fray	0230Z-0300Z, Sep 21
CWOps Mini-CWT Test	1300Z-1400Z, Sep 21 and 1900Z-2000Z, Sep 21 and 0300Z-0400Z, Sep 22
NAQCC CW Sprint	0030Z-0230Z, Sep 22
NCCC RTTY Sprint	0145Z-0215Z, Sep 23
NCCC Sprint	0230Z-0300Z, Sep 23
ARRL EME Contest	0000Z, Sep 24 to 2359Z, Sep 25
CQ Worldwide DX Contest, RTTY	0000Z, Sep 24 to 2400Z, Sep 25
Maine QSO Party	1200Z, Sep 24 to 1200Z, Sep 25
Texas QSO Party	1400Z, Sep 24 to 0200Z, Sep 25 and 1400Z-2000Z, Sep 25
AGCW VHF/UHF Contest	1400Z-1700Z, Sep 24 (144) and 1700Z-1800Z, Sep 24 (432)
RSGB International Sprint Contest, CW	1700Z-2100Z, Sep 24
UBA ON Contest, 6m	0700Z-1000Z, Sep 25
Classic Exchange, Phone	1300Z, Sep 25 to 0800Z, Sep 26 and 1300Z, Sep 27 to 0800Z, Sep 28
Peanut Power QRP Sprint	2000Z-2200Z, Sep 25
220 MHz Fall Sprint	1900 local - 2300 local, Sep 27
SKCC Sprint	0000Z-0200Z, Sep 28
Phone Fray	0230Z-0300Z, Sep 28
CWOps Mini-CWT Test	1300Z-1400Z, Sep 28 and 1900Z-2000Z, Sep 28 and 0300Z-0400Z, Sep 29
UKEICC 80m Contest	2000Z-2100Z, Sep 28
RSGB 80m Club Sprint, CW	1900Z-2000Z, Sep 29
NCCC RTTY Sprint	0145Z-0215Z, Sep 30
NCCC Sprint	0230Z-0300Z, Sep 30
YLRL DX/NA YL Anniversary Contest	1400Z, Sep 30 to 0200Z, Oct 2

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**TM-281A | 2 Mtr Mobile**

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- Wide receiver coverage • AM air band receive • 1000 memory channels w/alpha labels • Huge LCD display • Rugged die-cast, water resistant case • NOAA severe weather alert with alert scan

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