



# JUG

Publication of the  
Northern California  
Contest Club

# NCCC



#613 – August 2023

## NCCC – 53 years of contesting excellence

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**NCCC MEETING**  
<https://nccc.cc/meetings.html>

Next Zoom Meeting Tue 8 Aug  
**Dean Wood N6DE**  
**CQP 2023.**

***“How to make an impact in contests and lessons learned from the CQP 2022 NS6T M/M Expedition.”***

### President's Report

**David, KO6M**



Greetings fellow KBers!

I hope this newsletter finds you refreshed during our little big contest hiatus. It was wonderful to see so many of you at Wagon Wheel last month. I hope we can continue to have in person meetings and will continue to seek out venues for them. Granted our August meeting is on zoom only but there's no reason we can't change the meeting in September. News to follow on that idea.

Our next scheduled in person meeting is our BBQ in October. Please save the date for October 22<sup>nd</sup> at N6RO in Oakley. That is the same weekend as Pacificon. We did that for various reasons and last year those reasons paid off, hopefully they do this year too. Stay tuned for ticket info for the BBQ.

Speaking of Pacificon, please note,, the organizers, Mount Diablo Radio Club, are in serious need for volunteers. Dr. McIntyre has more to say about this in a following article in this issue. Please see <https://www.pacificon.org/registration/volunteers> for information and to sign up. We will also have a table at Pacificon. If you would like to sign up for a time to staff it and show your smiling face, please let me know. It is a wonderful time to show the community that NCCC is the premier contest club in Northern California.



As for contest news, don't forget about the NAQP challenge. PVRC has taken it upon themselves to bring back a club challenge using the online scoreboard. I know it's a hotbed of conversation but so far, it's looking like it's taking a solid form with some of the other clubs as well. Please reach out on the reflector if you have questions

about setting your shack up for it and hopefully someone smart than I can point you in the right direction.

Finally, I did want to take the time and talk about the free Life Memberships that NCCC offers. A month or so ago we had an application for a Life Membership from Rick, W6SR. He fits the requirements both by life experience and by being a member for over 20 years. Yet he had this to say:

*"I am over the age of 80, have been a NCCC member for over 20 years and eligible for free lifetime membership. Instead, I would like to purchase lifetime membership At my age I feel that a free-ride not the best way to support the NCCC in the future. Since most of us are white-in-the-hair (or no hair at all) and long in the tooth, it won't be long before funding awards becomes a problem. I would encourage other old farts, like myself, to pay-it-forward by becoming lifetime members. Please send me the address to post my check, and verify that lifetime membership dues are still \$250."*

We on the board were speechless, not because of the money but because of the nature of the message, Pay it forward. So we say thank you very much and we hope his words encourage more of us to think about the future of the club and how one can pay it forward.

Thank you all and KB!

**VP/CC Report**  
**Chris, N6WM**

### About NCCC

#### Officers and Directors, 2023-2024 Contest Season

President: David West, [KO6M](#)  
Vice-President/Contest Chairman: [Chris Tate, N6WM](#)  
Secretary: Greg Alameda, [KK6PXT](#)  
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Past President: [David Jaffe, WD6T](#)  
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Director: [John Miller, K6MM](#)  
Director: [Ed Radlo, AJ6V](#)

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QSL Mgr [\[K6ZM\]](#): vacant  
QSL Mgr [\[K6CQP/N6CQP/W6CQP\]](#): Ed Muns [WOYX](#)  
NAQP Teams: Fred Jensen, [K6DGW](#)  
NA CW Sprint Teams: Bob Vallio, [W6RGG](#)  
NCCC Email Reflector Admin: Phil Verinsky, [W6PK](#)  
Worked All CA Counties Award: Fred Jensen, [K6DGW](#)

#### NCCC Thursday Night Contesting

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NS CW Ladder: Bill Haddon, [N6ZFO](#)  
NS RTTY Sprint/Ladder: Ed Radlo, [AJ6V](#)

#### Communications

Webmaster: John Miller, [K6MM](#)  
Webinars: Bill Fehring, [W9KKN](#)  
Membership: Gary Johnson, [NA6O](#)/Ian Parker, [W6TCP](#)

#### JUG Editor

Fred Jensen, [K6DGW](#): [k6dgwnv@gmail.com](mailto:k6dgwnv@gmail.com)  
Home: 775.501.5488  
Cell: 530.210.0778



Greetings KBers. I hope you all are enjoying the summer months and those who traveled to WRTC and other summertime adventures are having a great time as the adventure continues.

For those of us spending summer at the home QTH, there remain several contest opportunities. Of course the first obvious ones are the NAQP series, we just finished



the RTTY edition a couple of weekes ago, and the CW event is coming up August 5<sup>th</sup> followed by the SSB event on August 19<sup>th</sup>. So keep an eye out for coordination from our expert coordinator K6DGW and sign up for some low power fun.

As I write this I am pondering how much fun I had when I chose to try a new (to me) contest on for size. For years, N6RO team member and IOTA enthusiast Bob K3EST has touted the RSGB IOTA contest as one of his favorites. Having some free time in this, I decided to test the waters for myself.

I am pleased to say that I found this a very fun event. There was plenty of activity, lots of great IOTAs out there all over the world. And even when there were no IOTAs to work at any particular time, since anyone can work anyone (of course not with the point value of iota stations but still .. points), it was completely feasible to park on 20m and call CQ TEST, and work stations passing serial number 1 to hearts contest. Here are pros and cons observations

#### **Pros-**

- 24-hour contest, 12z to 12z

- Has assisted and unassisted categories.

- Has 12-hour entry categories for folks that don't want to dive in head first 24 hours.

- Is a great SO2R proving ground with just enough operators to help learn and make it worth it

- Mults count per band

- Is a mixed mode contest, or cw only or ssb only.

#### **Cons-**

- No single band categories

- No multi-op categories for non-Island expeditions.

I had a surprisingly great time in this contest and will be back for more. I hope you all mark your calendars if so desired, and give it a go on the next one!

<https://www.rsgbcc.org/hf/rules/2023/riota.shtml>

As we continue into what has been touted as the hottest year on record, I was reminded how hot and unpleasant working on tower and station infrastructure in such heat can be, spending a nice blistering day at K6LRG. So, since many of us do this type of work, it's always good to pay attention to prevention of heat related injuries. Things like wearing a hat that can protect from the sun, wearing gloves when picking up aluminum that has been sitting in the sun to prevent burns. Keep yourself well hydrated, and if at a remote site, make sure to bring plenty of water and do your best to have a place to get out of the heat if needed. Here is a link from the California Department of public health with some great tips!

[https://www.cdph.ca.gov/Programs/EPO/Pages/BI\\_Natural-Disasters\\_Extreme-Heat\\_Tips-for-Preventing-Heat-Related-Illness.aspx](https://www.cdph.ca.gov/Programs/EPO/Pages/BI_Natural-Disasters_Extreme-Heat_Tips-for-Preventing-Heat-Related-Illness.aspx)

its great to get those antenna chores done, so stay safe to enjoy the spoils of your labor!

I also wanted to share how great it was to see so many of you at our last NCCC meting that was in person! The venue was adequate and the meeting area was perfect for ours ize. And most importantly Rich N6KT presented



on his station in PJ4 and even brought some of his partners in crime from the station to meet our membership. Thanks Rich for a wonderful presentation and bringing along the company!

That's it for this edition, continue to enjoy your summer and stay tuned as we creep forward to the start of the regular contest season.

73, KB and seeya next edition

Chris

## **Pacificon 2024 Needs You!**

**Kristen McIntyre K6WX**  
**ARRL Pacific Division Director**

Pacificon is the premier West Coast ham radio convention. Each October, Amateurs gather for all of the things we love like vendors, technology demonstrations, youth activities, license classes, special event stations, Wouff Hong, the swap meet, breakfast with Gordo, the Saturday Banquet, the ARRL Forum, the Antenna Forum, world-class talks, a chance to be with old friends and new, and more. Pacificon is also the ARRL Pacific Division Convention, which means it's near and dear to me as your Division Director.

All of this could go away. That's why I need your help. The Mount Diablo Amateur Radio Club (MDARC) has been the sponsor of this event for many years, and will continue to be the main sponsoring club. They have provided the leaders that make things happen from within their membership. The current Pacificon leadership has worked extraordinarily hard for many years to bring us the excellent experience we have all had. These amazing volunteers have, however, indicated that it's time for them to retire. Starting next year, they are ready to pass this leadership torch on to others in the ham radio community, inside or outside MDARC, who can continue to bring this event to us and grow it into the future.

This is where you come in. In this Year of the Volunteers, I want to encourage you to reach one rung higher and consider taking on one of the leadership roles that need to be filled to continue bringing Pacificon to you. If you are at all curious about what we need, please contact me and I will be happy to fill you in and put you in contact with the right people. This is an urgent need, as planning for Pacificon 2024 starts in just a few months.

Amateur Radio conventions are disappearing across the US. We don't want Pacificon to be one of those. Help MDARC and me keep this event healthy for years to come. You can contact me at [k6wx@arrl.org](mailto:k6wx@arrl.org).



## July NAQP RTTY Results

### Single Op Top Ten

N8OO	161,927	839	193	
K7RL	160,632	873	184	Deep Dixie CC Team Elvis
NP3Y	151,316	836	181	
AC0C	124,410	754	165	The Borg
<b>W7RN(WK6I)</b>	<b>115,536</b>	<b>696</b>	<b>166</b>	<b>NCCC Team #1</b>
N0AT	104,364	669	156	
K4ZW	94,073	623	151	SWACC #1
N7GP	78,336	544	144	AOCC BANDITOS
K9WX	75,336	516	146	SMC Spotted Cow
W0SD(KT0W)	73,569	537	137	I-guana go to the TTY Bar

### Single Op Assisted Top Ten

K3MM	127,617	721	177	SWACC #1
K9CT	116,688	663	176	
N0XR(@N0NI)	113,520	660	172	SWACC #1
N4ZZ	111,470	710	157	SWACC #1
K9OM	109,705	593	185	SWACC #1
WT9U	108,735	659	165	SMC Spotted Cow
<b>N6IE</b>	<b>94,866</b>	<b>582</b>	<b>163</b>	<b>NCCC Team #1</b>
W8BAR(W1TO)	89,262	513	174	SWACC #2
KI6DY	81,844	553	148	
VE3MGY	78,057	531	147	

We had a somewhat low turn-out for the NAQP RTTY in July, but NCCC still did well. Team winner was SWACC #1 with 556,385 points. NCCC Team #1 (W7RN(WK6I], N6IE, K6EI, N6ZFO, and WU6X) took third place at 303,296 points, just 810 points behind second place SMC Spotted Cow. NCCuffing and puffingC Team #2 came in at 14<sup>th</sup> with 73,890 points but with only 4 reporting members ... moderate harumpfung from NE Sparks NV was reported.

By the time you read this, the August NAQP CW will be either next, underway, or just finished depending on how quickly your editor can finishe the Aug issue. (Thanks to NCJ for the results)



## Tube of the Month

Norm Wilson, N6JV

(Department of Thermionic Paleontology)

Visit the Tube Museum at [n6jv.com](http://n6jv.com)

### Eimac 4CV1500B

In the first few years of using vacuum tubes for transmitting, there developed a definite arms race for more power. Large glass envelopes were only able to handle a limited power, so it wasn't long before they started building water cooled tubes. Pumps and radiators were well known technologies. Problems occurred when too much heat was being generated when the circulation of water wasn't evenly distributed around the anode and "hot spots" developed. The water boiled and damaged or destroyed the tube. The water had to be limited in temperature of 70° C and cooled down to about 40° C before injecting it back into the tube. The process required lots of hardware, pumps and fans.

Using steam for cooling was well known and in 1949, a French engineer working for Thomson, built a tube with heavy, solid fins that could be inserted into a boiler to produce steam. This process is 5 times as efficient as water cooling. I don't have information on how popular, except in France, this technology was, but in the mid 1960's, EIMAC began experimenting. Based on only a few fossils, it appears to me that they were interested in making small vapor cooled tubes for the hams and very large tubes for broadcasting and industrial heating.

An experimental triode was constructed to test the concept. It looks like it's based on one of the 3CX15,000 family mounted in a copper boiler with a window to look inside. The massive anode would boil water but wouldn't be susceptible to hot spots. Everything should stay at 100° C. This may have been a prototype resulting in the [3CV30,000A3](#) of 1963.



EIMAC chose their new [4CX1500B/4CW2000A](#) that had been so successful with its focused cathode technology to test the new tube concept. The anode had heavy fins welded on it and a can to contain the water and steam was added. The technology would work with any tube, but this size was standard for several tubes of this class. The designation 4CV1500B was chosen. The guys at EIMAC liked to build amplifiers, so a new amplifier using this tube was made that incorporated a condenser panel and a water reservoir. The new amp was featured in an article written for the May, 1966, issue of QST called the "[Stanley Steamer](#)". This copy is of



EIMAC's "Amateur Service Newsletter Nr. AS-28". I have never found a data sheet for this tube although the specifications for the 4CX1500B are the same. There is no evidence that this tube was commercially manufactured as few examples exist. An additional tube was constructed based on the 3CX1000A7 and designated it the [3CV1500A7](#). This tube was used in the Ehrhorn Alpha Seventy PA70-V. The selling point was that the amplifiers made no noise. The ham line is history, but the commercial and industrial tubes are still in production. The largest of these tubes is the [4CV250.000B](#).

*Ed Note (for the not-physicists): While boiling the cooling water might seem counter-productive, the latent heat of vaporization of water (the amount of heat one must add to get water at 100 ° C to become steam at 100° C) is 540 calories/gram, whereas to just raise the temperature of a gram of water 1° C is only one calorie. Thus, boiling the cooling water sucks a whole lot more heat from the tube than just letting it heat the cool water to a higher temperature. The water needs to be super clean of course so as to keep the tube anode insulated. Needless to say, the copper pipe in the photo in Norm's article will be insulated from the remainder of the cooling system.*



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**CQP is coming!**

Check out CQP.org to see the currently planned county expeditions. Unlike many state QSO Parties, CQP is famous for activating all fifty eight (58) CA counties. Now's a great time to plan your own expedition.



## Editor Notes



This issue of the JUG was a bit of a struggle ... not a lot of input. Alan, AD6E, is rumored to be working on a wrap-up of 2022 WRTC in Italy from his and his teammate K6XX's experiences. Other than that, we have nothing on tap.

ARRL filed comments on the FCC Electronic Comment Filing System in regard to RM-11953, a petition from a coalition of high-frequency [as in “very often,” not 3-30 MHz] securities traders to permit 20 kW, 50 kHz wide digital signals adjacent to our HF ham bands. The comments followed several months of work by the ARRL Lab determining the effects such stations might have on amateurs. Among other items, the petition asked for relaxed minimum specifications on out-of-band and spurious emissions which would profoundly affect amateur operations. You can find the ARRL comments at: [ARRL Comments RM-11953](#) The comment period has closed however Reply Comments are still open.

## Technical Syllabus Writers Needed

The Potomac Valley Radio Club has reactivated the “Contest-Within-A-Contest” within the six NAQP's with a possibly simplifying wrinkle: All scoring will be automatic, taken from the On Line Contest Scores page. This means, of course, that to have your score included in NCCC's total, loggers must be configured to provide the on-line real-time updates during the contest.

Figuring this would be a piece of cake with N1MM+, I attempted it for the NAQP RTTY last month. Apparently, it's not as easy as I had hoped, none of my six QSO's [a “token effort”] appeared in the listings after the contest. There are a myriad of loggers being used, here's a chance to contribute to the club with a set of instructions for your favorite logger.

In addition to fame [sorry, no fortune], you'll be doing the club a favor. If you're interested and to avoid duplication, email me at <mailto:k6dgwnv@gmail.com> and I'll keep everyone advised of the loggers being covered.



## **NCCC Membership Information**

If you wish to join NCCC, please fill out an application for membership, which will be read and voted upon at our monthly meeting. To join, you must reside within club territory which is defined as everything in California north of the Tehachapi's up to the Oregon state line, and part of northwestern Nevada (anything within our ARRL 175-mile radius circle centered at 10 miles north of Auburn on Highway 49).

### **Life Memberships**

Life memberships are \$250.00 Contact [secretary.nccc@gmail.com](mailto:secretary.nccc@gmail.com). Members who have reached 80 years of age have and been an NCCC member for 20 or more years are eligible for Honorary Life Membership (“80/20 Rule”). Contact [secretary.nccc@gmail.com](mailto:secretary.nccc@gmail.com)

### **JUG Articles Wanted!**

Your help allows us to produce a quality newsletter. Please consider submitting an article! The editor welcomes any and all relevant articles for inclusion in the JUG. The preferred format is plain, unformatted ASCII text, MS Word (.doc/.docx) are acceptable. Indicate the insertion point and title of diagrams and pictures in the text and attach photos/diagrams separately. Pictures should be as high a resolution as available. Please do not spend time formatting your submittal, the publication templates will re-format everything. Send your material to [k6dgwnv@gmail.com](mailto:k6dgwnv@gmail.com) indicating “JUG Submittal” in the subject.

### **Northern California Contest Club Reflector—Guidelines**

The NCCC email reflector is devoted to the discussion of contesting. Topics include contests, station building, dxpeditions, technical questions, contesting questions, amateur radio equipment wants/sales, score posting, amateur radio meetings/ conventions, and membership achievements. Postings may not include personal attacks, politics, or off-subject posts. Such postings will be considered a violation of the Guidelines

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**Northern California Contest Club**

### [NCCC Lands' End Store](#)

We are pleased to announce that the new NCCC Land's End store is online! You can choose from an array of shirts, jackets, and hats and apply your choice of custom-embroidered NCCC logos: A plain one, or one that also says Fifty Years. And, you can personalize your item by adding your name and/or call sign. The store is open 24/7 and items are shipped directly to you. No more waiting for everyone else to make up their minds on a group purchase.

<https://business.landsend.com/store/nccc/> or from the NCCC website: <http://nccc.ccc/members/lestore.html>

Thanks to W6TCP for helping to set this up. Instructions for purchases from Lands' End NCCC Store

1. Go to <https://business.landsend.com/store/nccc/>
2. Click on Men's or Women's link, then choose item(s)
3. Pick color, inter quantity of each size you want to order.
4. Click Apply Logos and Personalizations. This will display the logo choices. Try them out. It will show you what they look like on your chosen fabric color.
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- Hybrid SDR Configuration • Unparalleled 70 dB Max. Attenuation VC-Tune • New Generation Scope Display 3DSS • ABI (Active Band Indicator) & MPVD (Multi-Purpose VFO Outer Dial) • PC Remote Control Software to Expand the Operating Range • Includes External Power With Matching Front Speaker



**FT-710 Aess | HF/50MHz 100W SDR Transceiver**

- Unmatched SDR Receiving Performance • Band Pass Filters Dedicated for the Amateur Bands • High Res 4.3-inch TFT Color Touch Display • AESS: Acoustic Enhanced Speaker System with SP-40 For High-Fidelity Audio • Built-in High Speed Auto Antenna Tuner



**FTM-400XD | 2M/440 Mobile**

- Color display-green, blue, orange, purple, gray • GPS/APRS • Packet 1200/9600 bd ready • Spectrum scope • Bluetooth • MicroSD slot • 500 memory per band



**FTDX10 | HF/50MHz 100 W SDR Transceiver**

- Narrow Band and Direct Sampling SDR • Down Conversion, 9MHz IF Roofing Filters Produce Excellent Shape Factor • 5" Full-Color Touch Panel w/3D Spectrum Stream • High Speed Auto Antenna Tuner • Microphone Amplifier w/3-Stage Parametric Equalizer • Remote Operation w/optional LAN Unit (SCU-LAN10)



**FT-891 | HF+50 MHz All Mode Mobile Transceiver**

- Stable 100 Watt Output • 32-Bit IF DSP • Large Dot Matrix LCD Display with Quick Spectrum Scope • USB Port Allows Connection to a PC with a Single Cable • CAT Control, PTT/RTTY Control



**FT-70DR C4FM/FM 144/430MHz Xcvr**

- System Fusion Compatible • Large Front Speaker delivers 700 mW of Loud Audio Output • Automatic Mode Select detects C4FM or Fm Analog and Switches Accordingly • Huge 1,105 Channel Memory Capacity • External DC Jack for DC Supply and Battery Charging



**FT-991A | HF/VHF/UHF All Mode Transceiver**

- Real-time Spectrum Scope with Automatic Scope Control • Multi-color waterfall display • State of the art 32-bit Digital Signal Processing System • 3kHz Roofing Filter for enhanced performance • 3.5 inch Full Color TFT USB Capable • Internal Automatic Antenna Tuner • High Accuracy TCXO



**FTM-300DR | C4FM/FM 144/430MHz Dual Band**

- 50W Output Power • Real Dual Band Operation • Full Color TFT Display • Band Scope • Built-in Bluetooth • WIRES-X Portable Digital Node/Host Node with HRI-200



**FT-5DR C4FM/FM 144/430 MHz Dual Band**

- High-Res Full-Color Touch Screen TFT LCD Display • Easy Hands-Free Operation w/Built-In Bluetooth® Unit • Built-In High Precision GPS Antenna • 1200/9600bps APRS Data Communications • Supports Simultaneous C4FM Digital • Micro SD Card Slot



**FTDX101D | HF + 6M Transceiver**

- Narrow Band SDR & Direct Sampling SDR • Crystal Roofing Filters Phenomenal Multi-Signal Receiving Characteristics • Unparalleled -70dB Maximum Attenuation VC-Tune • 15 Separate (HAM 10 + GEN 5) Powerful Band Pass Filters • New Generation Scope Displays 3-Dimensional Spectrum Stream



**FT-2980R | Heavy-Duty 80W 2M FM Transceiver**

- 80 watts of RF power • Large 6 digit backlit LCD display for excellent visibility • 200 memory channels for serious users



**FT-65R | 144/430 MHz Transceiver**

- Compact Commercial Grade Rugged Design • Large Front Speaker Delivers 1W of Powerful Clear Audio • 5 Watts of Reliable RF Power Within a compact Body • 3.5-Hour Rapid Charger Included • Large White LED Flashlight, Alarm and Quick Home Channel Access



**FTM-200DR | C4FM/FM 144/430MHz Dual Band**

- 1200/9600bps APRS® Data Communications • 2" High-Res Full-Color TFT Display • High-Speed Band Scope • Advanced C4FM Digital Mode • Voice Recording Function for TX/RX



**FTM-6000R | 50W VHF/UHF Mobile Transceiver**

- All New User Operating Interface-E20-II (Easy to Operate-III) • Robust Speaker Delivers 3W of Clear, Crisp Receive Audio • Detachable Front Panel Can Be Mounted in Multiple Positions • Supports Optional Bluetooth® Wireless Operation Using the SSM-BT10 or a Commercially Available Bluetooth® Headset



- RETAIL LOCATIONS – Store hours 10:00AM - 5:30PM - Closed Sunday
- PHONE – Toll-free phone hours 9:30AM - 5:30PM
- ONLINE – WWW.HAMRADIO.COM
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