



Publication of the
Northern California
Contest Club

Issue 602
Sept 2022



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NCCC — 52 years of contesting excellence

Inside August Issue

Article	Page
President's Report	1, 3-6
About the NCCC	2
ISO new jug editor	6
Andy's AE6Y	7-10
Tributes to Kurt, K7NV	11-15
NCCC BBQ	16
Tube of the month	17
Google Calendars by N6TV	18
NCCC Information	19
Land's End NCCC	20
ELECRAFT Display Ad	21
HRO Display Ad	22

THE JUG NEEDS A NEW EDITOR AS OF JANUARY. I WILL RUN THROUGH THE DECEMBER ISSUE.

NCCC ZOOM MEETING

FOR DETAILS:

<https://nccc.cc/meetings.html>

Please join us on line via Zoom at:

Date: Tuesday, Sept 13

Time: Open chat, 6 PM PDST

Meeting: 6:30 PM to 8:30 PM

Open chat after the meeting, too.

Web Meeting Info: For Zoom meeting information, please contact the NCCC Secretary at secretary.nccc@gmail.com

We look forward to seeing you all online!
Greg, KK6PXT — NCCC Secretary”

President's Report - WD6T

CQ in September

Get it? (Take-off on the song “See you in September,” which was #23 on the hit parade in 1959, then #3 by a different group in 1968.) I can hear the response from our younger members now: “OK, Boomer!”

OK, just for that, here are the lyrics, channeling NOAX...

*Have a good time, but remember
there is danger in the summer moon-bounce
warmth.*

*Will you CQ in September
or lose your HF to the summer storms?*

(To be sung with a lisp so that “warmth” and “storms” rhyme. Or can invoke my high school English teacher, who said poems don't have to rhyme exactly. Uh-oh. Seems like I'm trespassing into AE6Y territory here. OK, enough of that!)

Seriously OMs and YLs (also YMs and OLs to be equitable), welcome to the 2022-23 contest season! As Old Sol spots, spews and storms, it should be an exciting, if bumpy ride. Fasten your climbing belts!



Board of Directors, 2022 - 2023 Contest Season

- President: David Jaffe, [WD6T](#)
- Vice-President and Contest Chairman: Andy Faber, [AE6Y](#)
- Secretary: Greg Alameda, [KK6PXT](#)
- Treasurer: David West, [W6DMW](#)
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- Awards Chair: Gary Johnson, [NA6O](#)
- California QSO Party Chair: Dean Wood, [N6DE](#)
- JUG Editor: Saraj Cory, [KU6F](#)
- K6ZM QSL Manager: TBD
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- NAQP Flogger: Fred Jensen, [K6DGW](#)
- NCCC Email Reflector Administrator: Phil Verinsky, [W6PK](#)
- NCCC Thursday Night Contesting - NCCC Sprint: Tom Hutton, [N3ZZ](#)
- NCCC Thursday Night Contesting - NS Ladder: Bill Haddon, [N6ZFO](#)
- NCCC Thursday Night Contesting - RTTY Sprint and RTTY Ladder: Ed Radio, [AJ6V](#)
- NA Sprint Flogger: Bob Vallio, [W6RGG](#)
- Webmaster: John Miller, [K6MM](#)
- Webinars: Bill Fehring, [W9KKN](#)
- Membership Committee: Gary Johnson, [NA6O](#) and Ian Parker, [W6TCP](#)

Thursday Night Sprint

The Northern California Contest Club sponsors a Thursday Night Contesting session of thirty minute duration. Often, on Fridays prior to a major contest weekend, a special practice session is held.

Generally, on Thursday evenings, a special format is followed, called NS or "NCCC Sprint". The NS began in the summer of 2004 as a snappy, concise contest occurring most Thursday nights, North America time. The power limit is 100 watts. Occasionally, multi-week ladder competitions are held. See www.ncccsprint.com for details

Thursday Night Contesting Director and Founder
 NCCC CW Sprint
 NCCC RTTY Sprint
 NCCC Sprint Ladder
 Sprint Web master www.ncccsprint.com
 Ladder Scores Manager
 Thursday Night Contesting Advisory Group

Bill, [N6ZFO](#)
 Tom, [N3ZZ](#) (initially Ken [N6RO](#))
 Ed Radlo, [AJ6V](#)
 Bill, [N6ZFO](#)
 John, [K6MM](#)
 Tim, [N3QE](#)
 Bill, [N6ZFO](#) Chair
 Mark, [K6UFO](#), (with [W4NZ](#), [N4AF](#),
[W9RE](#), [K4BAI](#), [N3BB](#), [VE3TY](#), and [WO8H](#))



(Continued from page 1)

In addition, with Covid numbers falling (hopefully, that will still be true by the time you read this), it is becoming more possible to travel and activate DX locations, for fun and (contesting) profit. As a famous NCCC Sprinter once said, "S-P-R-E-A-D OUT!"

Picnic

As of this writing, we are on track to have our first in-person meeting on October 16th: a picnic at the N6RO contest station, a Registered National Ham Radio Landmark (I made that up, but if there was such a thing, it would be one.) By meeting outside, we minimize the risk of Covid exposure. In addition, the timing of the event is such that it is comfortably sandwiched after the hot season and before the rainy season, so there is a high probability of perfect weather. I am very much looking forward to seeing many of you in person, particularly the new members who have never attended an in-person meeting. We will finally find out how tall you are! Come see the new 10 meter / 80 meter tower and the other members of the Farm! In addition, the N6RO Country Band will provide modulated oscillation in the 30-8000 Hz. range.

Silent Keys

Unfortunately, recent months have again seen a thinning of our ranks, including K7NV, whom many knew as a tower and rotator expert, among other skills. See elsewhere in this issue for more about Kurt. Another piece of recent sad news is the passing of John Galli, W6JZH. I operated several times at John's station, as did Denis K7GK, who won LP CW SS from there. John was a superb engineer and his SO2R-capable station was neat, well-organized, and designed to minimize inter-station interference. His favorite mode was CW. John was a generous and kind soul who always seemed to have a positive view on life and something nice to say, despite some extremely challenging health issues. He always called me "buddy" and liked hearing about my latest contesting triumphs and travails. I will miss him.



Trying Something New

Many NCCC'ers jumped into the WW Digi contest with both feet this year, thanks to S52D and K6OK's excellent presentations, giving us tips. This contest was part of the "KB" intra-club competition. Unfortunately, I missed it, as I injured my back and wasn't up for the BIC.

However, I did manage to try a new-to-me shorter contest this year: CW Open. Although the cast of characters was well-known from the weekly Wednesday night CWTs, the CW Open had a significantly-different feeling, for two reasons: first, logs are checked so everyone was more careful about copying the exchange, and second, the exchange included serial numbers, which can't be pre-filled. This year, Dean N6DE organized a couple of NCCC-staffed teams. This was not an official NCCC focus contest, but it was nice to see participation. I had the pleasure of operating from the Stanford club station. Here are some observations on the contest:

PARTICIPATION - The first half hour had rates well over 200, similar to CWTs; but things already started to slow by 2045z. Also, many guys were worked on multiple bands. Since mults are unique call-signs in this one and we tend to go from high to low bands due to propagation, the ratio of Qs to mults is illuminating: For me, it was: 15m = 90% were unique. 20m = 60% were unique, 40m = 18% were unique. Still, 3830 shows over 300 logs reported, and I ended with 461 non-dupe Qs, so there were apparently many more Qs to be had. I suspect that there would be greater participation if there were only one, rather than three different sessions, as not everyone participated in every session (e.g. I did only the third session.)

SO2R - It was challenging to copy those serial numbers while doing SO2R or 2BSIQ, especially when asked for a repeat (or when I needed one) and I found myself with both "ears" sending me numbers at the same time. This was a bit of a shock after doing CWTs and NAQP, where the exchange is mostly known from the pre-fills, and you're just checking it; or CQ WW, where there is essentially nothing to copy in the exchange (except the zone for Ws, where you have only one digit and you know it can only be 3,4 or 5). In that way, it was similar to CQ WPX, except you also had to copy the name; most names were pre-filled but you had to check.



SPEED - In CWT's I am usually at 38 or 40 wpm, but for this one I was at 34, thinking that would mean fewer requests for fills. I suppose I could have programmed my macros to send the number slower, but otherwise send faster. The somewhat slower speed made for a bit more waiting at times with 2BSIQ. On the other hand, this was counter-balanced by the fact that the serial numbers were at most three digits, shorter than CWT member numbers, which are often four digits.

SERIAL NUMBERS - In serial number contests, you always know how you're doing compared to others (well, except for the mults). It was a novelty to be called by the likes of AA3B and K3WW and give them a substantially higher number than they gave me. Of course, they pulled way ahead later when 40m opened for them. When I worked N5ZO (who, operating from SoCal, nearly always beats me in CWTs) near the end of the contest, we had almost exactly the same number. Of course, serial numbers don't tell you how many dupes each of you had. I had 18 dupes.

MULTS - Mults in this one are almost as numerous as Qs so there's no real reason to waste time on them (tempting as they are). In that way, CWOpen is similar to WPX, only more so. In particular, there's no reason at all to waste time trying to work DX if you can't get them on the first or second call. My Q-to-mult ratio by the end of the contest was 1.4:1. I did make one mistake in that my "Available Mults and Qs" logger window was set to mults-only on 15m. I only noticed it after most people had left 15, so I expect I missed some non-mults S&Ps on 15. On the other hand, since most people tended to start on 15 and migrate to 20, it was likely to be only the SO2R guys whom I missed. As it was, I had the second highest 15m total (the highest was AE6Y).

EXCHANGE - Since the exchange on this one was <serial number><name>, in that order, it was crucial to get the start of the exchange. Some guys seemed to jump the gun (since they already had my name from a prefill) and I'd miss the first digit. I actually appreciated the guys whose exchange started with "R" or "TU", which gave me a chance to breathe, move my hands to the other keyboard, etc.



Too Many Contests? Or Not Enough Weekends?

Unfortunately, the CWOpen always seems to conflict with something. In past years, it conflicted with the NA Sprint. This year, it conflicted with the All Asia SSB. But there are a limited number of weekends so...

Although not acting in an official capacity, WD6T hereby goes on record suggesting to the world that we all change to a three-day workweek, retaining the two-day weekend. That would increase the number of contesting weekends to a ham-friendly 73. Think of the possibilities! For clarity, we could also change the names of the days (as suggested by my composing mentor, Henry Brant) to "One's Day," "Two's Day," "Three's Day," and the two weekend days, "Four's Day" and "Five's Day." In return, I promise to be 5/3 more productive for the three workdays. Deal, boss?

In the mean time, while we're waiting for the slow wheels of bureaucracy to turn in implementing this plan, we'll have to continue to make choices about which contest to operate when there are conflicts.

Each contest has different challenges and trying a new one from time to time can be illuminating, lighting up neural pathways that may not have seen the light of day for a while. There are plenty of contests to choose from. See contesting.com for details.

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[Announcement from your editor.](#) I will exit as editor of the Jug with publication of the December issue. I've enjoyed this year, but need to open time for other pursuits. Let us know if you are interested.

Thank you,

Saraj, KU6F



September 2022 AE6Y VP/CC JUG Column

In his column this month, our President, Dave, WD6T, gives an interesting perspective on his foray into the third CW Open session, the one running from 1 to 5 p.m. local time. He did really well, as he has been doing in weekly CWTs, particularly when operating from the W6YX superstation. Since I went full-bore in the CW Open over Labor Day weekend, I thought I'd give some of my own perspectives on that experience.

As I mentioned in last month's column, I operated in all three of the CW Open sessions in the inaugural contest in 2011 but have not done so in any year since then. So I thought I'd bite the bullet, and get up in time to put in four hours of BIC for the 1200Z session, which starts at 5 a.m. PDST. Not surprisingly, that was my weakest score, but I wanted to help out our NCCC team, which was ably flogged this year by Dean, N6DE. We had won the contest in 2011, but seemingly been dormant since then. One of the neat things about the CW Open is that it takes place in three four-hour segments spread over a full 24 hours.

This feature has several advantages: (a) It provides for interesting varieties of band openings and offers differing opportunities to stations around the world; (b) It allows you to put in a solid 4 hours, then recuperate for the next session; and (c) while any contest operating can be a grueling experience, this approach doesn't turn you into a zombie after the contest or wipe out the whole weekend.

Each of the three segments has a different band-maximization strategy, which can vary from coast to coast. For us on the West Coast, the 0000Z session starts out as a 20m contest, then switches to 40 and 80 (my band totals were 186, 169, 48 on those bands). Of course, the strategy from here is to stay on the highest band that will enable a decent rate.

For the 1200Z session, we had to start on 40/80, then hope that 20 would open up. My totals on those four bands were 8, 201, 116, and 9 (15-80). 15 was interesting. It never opened in a big way, and the first station I heard on the second radio was Noe, CO8NMN, who had an S-9 signal on an otherwise dead band. Then the band opened to FL, and I think I heard one TX station also, but there was no general East Coast opening. I tried beaming Japan at the start on 40m, and did work a few, but rapidly determined that looking for JAs would not be a productive strategy when the band was open to the east, so I abandoned that approach after a few minutes.

On the other hand, 15 was in terrific shape for the 2000Z session, starting at 1 p.m. our time. In that contest, my QSO totals on 15, 20 and 40 were 182, 182, and 36. The pileup on 15 was great for an hour or so (in fact, my QSO rates on the three bands were 149, 84, and 58 respectively). Dave, WD6T, had a first hour of 185 or so, which I infer was due to his use of 2BSIQ on 15 and 20. My first hour was 155, with which I was delighted, but unfortunately, the succeeding hours dwindled to 106, 82, and a miserable 57 at the end. That first hour included 135 QSOs on 15 and 20 second radio contacts on 20. Not using 2BSIQ, I tried to call stations on the second radio on 20 that I recognized as being quick, efficient operators, so as to try to make the contacts as quickly as possible to enable a rapid return to the 15-meter pileup.



Of course, as we have come to expect in contest held in the summer in the late afternoon, 40 was an exercise in frustration. I could clearly hear a number of East Coast stations, including many that I had worked already on 20, but most could not hear me. Working 6s and 7s on 40 still contributed to the score, but there just weren't enough of them to keep the rate up.

My point is that each of the three sessions of the CWO had a different character and called for obvious strategy shifts in band allocations. The one strategy that I did not employ, but that it is obvious was used by almost all the top scorers, is "assistance" – i.e., using packet, skimmer, etc. It's very clear that this is part of their strategy; thus, as soon as I showed up on a new band, the "usual suspects" would immediately start to call in. Packet is so well integrated in programs like N1MM, that using it can greatly improve your score. And if you were operating LP or QRP, it would make a huge difference. I just prefer to use old-fashioned SO2R, but am feeling increasingly like a dinosaur, as contests continue to drop the old unassisted class in favor of allowing assistance for all single ops.

What's in a name? One of the fun things about the CWOs, as well as the NAQPs, is the use of your name as an element of the exchange. This makes the contests more friendly affairs (and even more so in NAQP SSB where guys greet each other by name all the time – it's probably not reasonable to ask CW Ops to sponsor a CWO for phone, is it?).

Generally, I find that the names in my prefill files (taken only from my logs in prior contests) are correct, but sometimes there is a mistake, or a new operator, or a commemorative name is used, etc., so one always has to listen carefully to log the correct name (coincidentally, my take is that in the CWTs there is a lot of non-listening going on, as there seems to be a general disregard of the actual exchange used – perhaps because the logs are not checked, and the CW Ops numbers are all on line anyway).

Anyway, regarding names, another oddity of the CW Ops is that mults are just different callsigns worked, regardless of geography. Now, we are so used to chasing geographic mults in Sprint and NAQP (not to mention CQP, see below), that in the CW Open, it's hard to suppress a thrill when you are called, say by VE5MX, or KVOI (Nebraska, rare in NAQPs), or N3DXX in DE. But they don't count any more than a garden variety CA station.

Nonetheless, one of the rare mults that we have all worked countless times is Karl, N8NA, in Delaware. And he did call me once in each session of the CWO. Strangely, the first time he sent the name Ed. In the second session, I was all set to log Ed, when he sent Al. In the third, I was getting a little punch drunk, expecting Ed or Al, but he sent something else. At first, my befuddled brain simply refused to copy what he sent, and I had to ask for a repeat. Then I listened more carefully, and sure enough, it was Karl. As Juliet said of Romeo, "a rose by any other name would smell as sweet." So here's a pome about my name confusion:

An N8NA by Any Other Name

I knew that DE mult's name,
But somehow it wasn't the same.

First it was Ed,
Then Al, instead.

Now Karl has returned to the game.



CQP has always been a favorite contest of mine, and this will be roughly my 30th year joining in the fun. The best I have ever done was a second-place finish in 1994, just a little behind AB6FO (now K6LA). Our scores, by the way were about one-half of the current record of 474k set by KI6RRN in 2020. I did hold the LP record for a few years, set in 2010, but that was smashed convincingly by N5ZO ten years later. C'est la vie...

Anyway, regardless of records, the contest is always very enjoyable, particularly when the high bands (15 and maybe 10) are open. Over the years, it has been transformed into more of a CW contest, as the 3 point per Q for CW versus 2 points for phone outweighs the normally higher rate advantage of phone. In fact, Bob, N6TV, finished 5th last year in his usual all-CW effort and for the first time that I can remember actually worked all 58 mults on CW (usually there are one or two that just show up on phone).

As an interesting example for analysis, here are my rates for phone and CW in the 2021 CQP

PHONE RATES PER BAND

Band	10	15	20	40	80	160	Total
Hours	:01	1:16	4:50	1:26	0:53	0:09	8:35
Qs/hr	59	90	92	126	74	93	95
Pts/hr	119	178	180	251	149	186	188

CW RATES PER BAND

Band	10	15	20	40	80	160	Total
Hours	:04	3:36	5:31	3:14	1:56	0:30	14:49
Qs/hr	68	87	90	95	91	84	90
Pts/hr	205	259	264	285	271	252	268

From a strategy perspective, there are a couple of conclusions that jump out at you:

- 1) Even though I spent almost twice as much time on CW as on phone, the points per hour were 268 on CW versus 188 on phone, indicating that even more time spent on CW would be desirable.
- 2) 40 was my highest rate band, on both modes. This is strange, as I usually don't feel strong on 40 phone. My general theory in state QSO parties is that phone strongly favors stations with big signals. If you get on briefly just to work a few guys in a state QSO party, it is so easy just to tune around and hit on the loudest stations, so that more normal signals just get worked by the serious operators in the contest, not by the normal run of casual operators. There may be an exception if 10 opens up, but that hasn't happened for a while.

Anyway, regardless of your personal strategy, I urge everyone to get on for CQP. It's our best chance of the year to be the "dx" station generating pileups of eager callers around the country (and, if conditions are good, even some reasonable DX stations). Let's all join the Party!



Published WPX SSB Results

I can't end the column without noting some spectacular results from NCCC members in the 2022 CQ WPX SSB contest. WPX is a focus contest for the club, and the print issue of CQ that just arrived featured a world-wide high-power win by our own N6KT, operating on Bonaire at the station his group has been building, PJ4K. He also broke the South American record held since 2001 by, you guessed it, N6KT at HC8A.

Also with a convincing world #1 finish was John, W6LD, operating from our P40L/P49Y station on Aruba in the low-power category. John had more than twice the score of the second-place finisher. The write-up notes that PJ4K had a high hourly rate of 283, while P40L had a 209 hour. These are terrific rates for that contest, where you have to copy a serial number, and don't have a zone or state prefill as in CQWW DX or ARRL DX.

Congratulations to both on their terrific results. Hopefully, 2023 will allow more contest expeditionary travel for us all.



In memory of Kurt, K7NV/SK.

We'll be listing up for you. Thanks for your kindness to a newbie on the mountain.

From Tom McShane, "two pictures of Kirk working on my antennas from 2013. His helper was K6NA Glenn Rattmann on my roof. I was shocked to hear that my good friend Kurt K7NV passed away last night in his sleep. He helped improve my ham radio antennas so my station NW6P became a big gun in radio contests. He and his partners stayed with me several times when he was working on antennas in Silicon Valley. Overtime we became good friends. Kurt's family and ham radio enthusiasts throughout the world will miss "Radio Nevada"."





And from Tom Taormina, K5RC

Photos

- 1. Riding the crane line to the top of the 175' Monopole 2013
- 2. Winter antenna work 2015
- 3. Kurt and XE2K – Tower Busters 2 2015
- 4. World famous K7NV Prop Pitch Rotator
- 5. K6NA and Kurt – Tower Busters 1 2013
- 6. Kurt at W1AW/7 2014
- 7. Kurt Co-Captain of W1AW/7 2014









The end of an era passed with Kurt. There is no telling how many of his prop pitch rotators and clamps there are in use around the world. We have five in the air and they will be a tribute to K7NV. We were friends for more than 20 years and shared many adventures in antennas, contests, and conventions. He was a mainstay to our multi-op contests and was my co-captain for W1AW/7. Kurt was an avid surfer in his youth. His career included building surf boards, which led him to pioneering work designing carbon composite spars and masts for world-class sailing vessels. We were also friends with his Dad, W6KUT, who was a So-Cal legend in DXing and Ed was friends with my Mom.

His work product is also memorialized in the 3 element 80M beam he designed for us from scratch. He did extensive modeling and wind-tunnel simulations before it was built. It has been in the air more than five years and is another tribute to his genius.

Farewell, old friend.
Tom Taormina, K5RC

The Comstock Memorial Station, W7RN
www.w7rn.com





NCCC Family BBQ Picnic - 16 October 2022

Our first in-person meeting in so long we can't even remember when... DON'T MISS THIS OPPORTUNITY!! Register Today!

- See one of California's most outstanding contest stations
- Savor a delicious outdoor BBQ meal by an experienced Bay Area BBQ caterer
- Hear MUSIC with the NCCC Country Band, led by N6RO himself.

Please register and purchase lunch by Thursday, Oct. 13th. Cost: \$36 per person.

https://www.memberplanet.com/events/nccckb/nccc_picnic_16oct2022

(It's ok if you don't want to buy food, but please register anyway)

Bring the family to the NCCC BBQ Picnic at Ken Keeler's N6RO Antenna Farm in Oakley!

Date: Sunday, 16 October 2022

Time: 11:00 AM to 4:00 PM

**Location: Ken Keeler's N6RO Antenna Farm
[5480 Sellers Ave., Oakley, CA 94561](https://www.google.com/maps/place/5480+Sellers+Ave,+Oakley,+CA+94561)**

Picnic Events Include:

11:00

- Enjoy music by the NCCC Country Band
- Ogle Ken's antennas and contest station
- See the new and improved 10/6/80 m tower
- Socialize with friends old and new
- Explore the vineyard, chase squirrels, and marvel at the many hawks
- Have fun, play games (Please bring picnic games, balls, etc. to share!)

NOTE: Masks required inside the shack. Any other health rules will be posted.

12:00 Catered BBQ lunch provided by BBQ Bill of C&C BBQ & Catering!

12:15 Welcome & NCCC Announcements: David Jaffe, WD6T, NCCC President

1:30 Live music!

BBQ Lunch Catered by C&C BBQ & Catering (\$36/person)

Entrees:

- BBQ Chicken
- Beef Ribs
- Smoked Tri-Tip

Salad:

- Garden Salad

Side Dishes:

- Corn on the Cobb
- Ranch Style Beans

Assorted rolls with butter, water, iced tea, & cookies

Assorted sodas



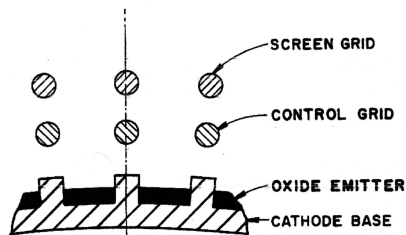


Tube of the Month

4CX5000B

The old [4CX1000A/8168](#) tube of 1957 was a big success in spite of the potential damage to the grid when it was overdriven. In order to achieve very high gain, the grid needed to be made with a dense pattern of very small, gold plated, wires. The cathode was a cylinder that had an evenly applied coating of barium-strontium oxide. When the cathode was heated, electrons would be emitted toward the anode. Some of the electrons would actually strike the grid wires and draw current. If too much current was drawn, the grid wires would overheat and lose some of their coating which resulted in secondary emission and increased distortion.

The obvious cure would be to make the electrons miss the grid wires. The gun type emitters have been used in CRTs, but aiming streams of electrons so they miss the grids but still hit the anode in an even pattern, was the problem. These structures are very small. EIMAC began experimenting on what they called a “focus cathode” using the 4CX1000A platform. This assembly was made by machining a series of vertical channels into the surface of the cathode cylinder in a number equal to the number of vertical grid wires. The oxide is applied to the valleys and the steep sides of the lands act as deflectors that shadow the grids from most of the electrons. The illustration was adapted from an unpublished EIMAC report.



The [4CX15000B/8660](#) tube was made with this grid structure. The grid was rated at 1 watt which allowed higher power to be produced while maintaining very low distortion in AB2 mode. The new tube could be used to replace the 4CX1000A with a small increase in screen voltage. Adapting this technology to triodes lead to the well-known [8877](#).

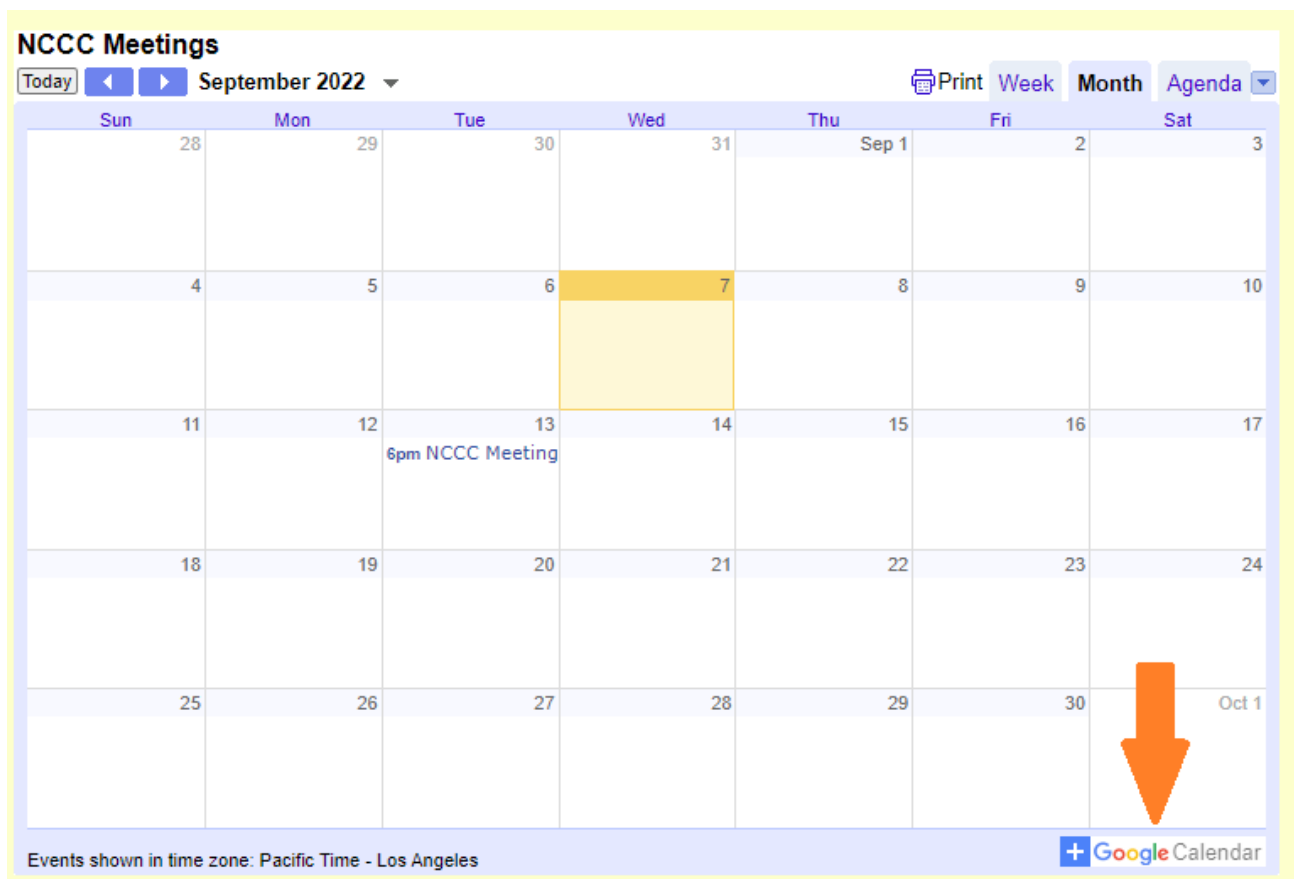
Norm N6JV



From Bob Wilson, N6TV

If you use Google Calendar, consider adding the NCCC Meetings calendar to your Google Calendar display.

1. Go to <https://nccc.cc/meetings.html>
2. Scroll down to calendar
3. Click on "+Google Calendar", lower right corner.



4. Follow the prompts.

73, Bob, N6TV



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 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).

Life Memberships.— \$250.00 Contact secretary.nccc@gmail.com. The 80/20 Rule:

Members who have reached 80 years of age have and been a NCCC Member for 20 years are eligible for Honorary life membership. Contact 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 Mac PAGES or MS Word (.doc or .docx), Arial 11 point. Indicate the insertion point and title of diagrams and pictures in the text and attach photos separately.

Pictures should be full resolution. Avoid PDF files and email text. Please contact us if that's your only format.

Send material to Saraj, KU6F, saraj@sonic.net, ph: 707-888-3906

PLEASE INDICATE "JUG SUBMISSION" IN EMAIL SUBJECT LINE.

Northern California Contest Club Reflector—Guidelines

The NCCC reflector is devoted to the discussion of contesting.

Topics include, for example, contests, station building, dx-peditions, 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.

Find NCCC on Social Media

Facebook: "Northern California Contest Club"

Twitter: "NCCCKB"



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.

Go to <https://business.landsend.com/store/nccc/> It's easy to use.

From nccc.cc: <http://nccc.cc/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.
5. Select a location for logo (left side, ride side, back, etc)
6. Click Apply Logo.
7. Optionally, click Add Personalization to add your name or call sign (\$8.00, 10 character limit)
8. Click Add to Bag and Continue Shopping or.
9. Start Secure Check out. Account creation and credit card required.

The screenshot shows the top portion of the NCCC Lands' End Store website. At the top left is the "LANDS' END BUSINESS" logo. To its right is a search bar with the word "Search" and a magnifying glass icon. Below the logo is the URL <https://business.landsend.com/store/nccc/>. In the center, there are navigation links for "MEN", "WOMEN", and "PROMOTIONAL PRODUCTS". On the left side, there is a welcome message: "Welcome to the NCCC Land's End store. You can choose many different products and add a custom-embroidered NCCC logo." Below this, it says: "If you would like to add your name and/or call sign, click the Add Personalization button when deisgning your garment (\$8 charge, 10 character limit)." At the bottom left, it provides contact information: "If you have questions, contact the NCCC secretary at: secretary.nccc@gmail.com". On the right side, there is a large orange oval containing the text "NCCC" in bold black letters, with "Northern California Contest Club" written below it.



Northern California Contest Club

Excellence In Amateur Radio Contesting

K4 HIGH-PERFORMANCE DIRECT SAMPLING SDR



A direct-sampling SDR you'll love to use

Our new K4 transceiver harnesses advanced signal processing while retaining the best aspects of the K3S and P3. It features a 7" touch display, plus a rich set of dedicated controls. Per-VFO transmit metering makes split mode foolproof. Band-stacking registers and per-receiver settings are versatile and intuitive. Control usage information is just one tap away thanks to a built-in help system.

Modular, hybrid architecture adapts to your needs

The basic K4 covers 160-6 m, with dual receive on the same or different bands. The K4D adds diversity receive, with a full set of band-pass filters for the second receiver. (Thanks to direct RF sampling, there's no need for crystal filters in either the K4 or K4D.) The K4HD adds a dual superhet module for extreme-signal environments. Any K4 model can be upgraded to the next level, and future enhancements—such as a planned internal VHF/UHF module—can be added as needed.

Single or dual panadapter, plus a high-resolution tuning aid

The main panadapter can be set up as single or dual. Separate from the main panadapter is our per-receiver mini-pan tuning aid, with a resampled bandwidth as narrow as +/- 1 kHz. You can turn it on by tapping either receiver's S-meter or by tapping on a signal of interest, then easily auto-spot or fine tune to the signal.

Comprehensive I/O, plus full remote control

The K4's rear panel includes all the analog and digital I/O you'll ever need. All K-line accessories are supported, including amps, ATUs, and our K-Pod controller. The Video output can mirror the K4 screen or display a high-res Panadapter only screen. Via Ethernet, the K4 can be 100% remote controlled from a PC, notebook, tablet, or even another K4, with panadapter data included in all remote displays. Work the world from anywhere—in style!

K4 KEY FEATURES

Optimized for ease of use

Modular, upgradeable design

7" color screen with touch and mouse control

ATU with 10:1+ range, 3 antenna jacks

Up to 5 receive antenna sources

Full remote control via Ethernet



The K4 interfaces seamlessly with the KPAS00 and KPA1500 amplifiers

The performance of their products is only eclipsed by their service and support. Truly amazing! Joe - W1GO



For complete features and specifications visit elecraft.com • 831-763-4211



Northern California Contest Club

Excellence In Amateur Radio Contesting

HAM RADIO OUTLET

MULTI-STORE BUYING POWER!

ICOM



IC-9700
All Mode Tri-Band Transceiver



IC-7300
HF Transceiver



IC-7100
All Mode Transceiver



ID-5100A Deluxe
VHF/UHF Dual Band Digital Transceiver



IC-705
HF/50/144/430 MHz All Mode Transceiver

KENWOOD



TS-590SG
HF/50MHz Transceiver



TM-D710G
2M/440 Dualband



TM-V71A
2M/440 DualBand



TM-281A
2 Mtr Mobile



TH-D74A
2M/220/440 HT

YAESU
The radio



FT-991A
HF/VHF/UHF Transceiver



FT-891
HF+50 MHz All Mode Transceiver



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



FTM-400XD
2M/440 Mobile



FT-70DR
C4FM/FM 144/430 Xcvr



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

HRO is family owned and operated by active hams!

ANAHEIM, CA (909) 854-9546	OAKLAND, CA (877) 892-1745	PORTLAND, OR (800) 765-4267	PHOENIX, AZ (800) 559-7368	MILWAUKEE, WI (800) 568-0411	WOODBRIDGE, VA (800) 444-4796	Shop Anytime From Anywhere with Our Online Superstore WWW.HAMRADIO.COM
PLANO, TX (877) 456-8750	SAN DIEGO, CA (877) 520-9623	DENVER, CO (800) 444-9476	ATLANTA, GA (800) 444-7927	NEW CASTLE, DE (800) 644-4476	SALEM, NH (800) 444-0047	

Contact HRO for promotion details. Toll Free including KL7, VE and KHE. Call will be routed to nearest store. All 800-HRO-lines can assist you. If Busy, you may call another number. Prices, specifications and descriptions subject to change without notice.