

Publication of the Northern California Contest Club



Issue 596

March 2022



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NCCC — 52 years of contesting excellence

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NCCC ZOOM MEETING

FOR DETAILS: https://nccc.cc/meetings.html Sunday, March 20, 2022

Please join us on line via Zoom at: Date: Sunday, March 20, 2022

Time: Open chat, 12:30 PM PDST Meeting: 1 PM to 3 PM Open chat after the meeting, too.

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

Program:

1. VP/CC Update - Andy, AE6Y

2. Tour of the W6SRR remote hilltop station with NA6O and W6TCP

3. CQ WPX- Panel discussion

We look forward to seeing you all online!

Gary, NA60 NCCC Secretary

President's Report - WD6T

David A. Jaffe – WD6T

Phone Freaks

March is the month for phone contests, starting with ARRL DX and ending with CQ WPX. Phone operating is both the easiest and the hardest mode. What makes it so?

Acquiring and using spoken language is one of the fundamental aspects of what makes us human. It allows us to formulate and express complex thoughts and enables both the highest and lowest forms of human expression. Of course CW is also a language mode, as is RTTY, but phone affords the opportunity to rapidly exchange information. Furthermore, cadence of speech, accents, etc. convey important cultural cues and these are difficult to ascertain in CW or RTTY. (Some would argue that this limitation is an advantage of CW!)

I attained my novice license at age 12 in 1967. After operating for a year with a crystal-controlled 15-watt transmitter on 40m and 15m, I was eager to try phone as soon as I got my General license. I found phone particularly exciting, as it was possible to have much more natural conversations than the trickle of information at five (or even thirteen) words per minute on CW. I loved to hear the foreign accents of the DX stations, as well as people from diverse parts of the U.S. In a time before Internet reflectors and chat rooms, ham radio afforded



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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 Bill, N6ZFO NCCC CW Sprint Tom, N3ZZ (initially Ken N6RO) NCCC RTTY Sprint Ken, K6MR NCCC Sprint Ladder Bill, N6ZFO Sprint Web master www.ncccsprint.com John, K6MM Ladder Scores Manager Tim, N3QE Thursday Night Contesting Advisory Group Bill, N6ZFO Chair Mark, K6UFO, (with W4NZ, N4AF, W9RE, K4BAI, N3BB, VE3TY, and WO8H)



PRESIDENT'S REPORT (continued from page 1)

the opportunity to randomly run into people from all walks of life in all parts of the world. Although the conversations were usually about gear, antennas, and propagation, sometimes we'd venture farther afield. As a rock-and-roll guitar player, I was fascinated by a QSO with a guy who happened to have been at a concert of The Doors, one that was particularly notorious.

The late 1960s were a time of extreme national polarization, not unlike the present day, and the conflicts often spilled over onto the ham bands. This was my first experience with "DQRM," deliberate jamming, profanity, and other behaviors not fitting a radio amateur. The dark side of phone is that it is well-suited to such antisocial behavior. In fact, it was one of the contributing factors to pushing me away from the hobby for several decades.

Here are a few of the aspects of phone operating that make it both fun and challenging:

Phone allows for the highest rates of any mode. But it also has the worst signal to noise ratio and your rate can tank by the need for many fills. SSB phone in particular is an AM-derived mode, and thus does not have a "capture" like FM. While that allows information to be conveyed in the presence of interfering signals, it also means that you have to deal with such interference, which can be stressful.

As the most broadband of the common contest modes, SSB occupies several kHz., making it harder to find and hold a frequency. It is common to have the edges of your passband encroached upon, and QRM can be ferocious. You can tame this on the receiving end to some degree by narrowing your bandpass, but be careful. I recall doing so on 40m while running JAs only to realize that I was having to ask for many fills because I was missing crucial parts of the spectrum necessary for intelligibility.

Phone requires fairly good hearing, at least up to the 3 kHz. range. Modern rigs' equalization can be used to counteract the effect of age-related high frequency hearing loss, if it is not too severe. Of course, hearing aids can also be used. (Aside: I have been advised that one should get a hearing aid sooner rather than later, so that your brain retains the ability to process high frequencies.)

Phone contests allow for complex and rapid mini-conversations. It is the easiest mode to move a multiplier to another band (this is not a factor for WPX or Sweepstakes, as multipliers are not per band.) However, you may find yourself embroiled in a long conversation that you didn't bargain for: "Can you move to 1.86 MHz.?" The response is, "well, I used to have a 160 meter antenna, but a



moose ran into the tree and now one end is dangling, so, while I've been meaning to climb up, my back is not as good as it once was, and the XYL will read me the riot act if I do, but I might be able to load up my random wire, though my tuner is on the fritz, and when I opened it up, wouldn't you know it but I found a nest of ants. . . (blah blah)." Meanwhile, you watch the rate meter plummet.

Phone communication (except for satellites) are half duplex. That means there may not be an easy way to interrupt a conversation like that. While the same is true in CW if the other op is not using full QSK, he will probably drop into receive between words or sentences so you can jump in and say "TU GOTTA GO 73 QRZ?" As for RTTY, if he hits the key that plays his brag file, you might as well go get a sandwich. Some operators swear by VOX ("voice operated transmit"), but I've never managed to tame it. It likes to trip when I'm trying to copy a station and refuses to kick in when I begin speaking. There may be some sweet spot between VOX and anti-VOX but it seems to elude me. Also, even if I could find it, my dog's barking would intervene.

The multiplicity of accents on phone, while intriguing, can also be a source of frustration in a contest. Was that JA saying "oscar" or "alpha," "Zulu" or "bravo"? In cases where you get stuck, you can try using place names as a substitute, as long as they are standard ones. "Washington Denmark Six Tokyo" works better than "Warsaw Denton Six Trenton." Unfortunately, the numbers don't have alternatives. You can always try counting it out. . . "One two three four five six;" even if the other station can't copy the numbers, he'll be able to count them. Sometimes it can help to speak the other operator's language, but beware: he may not be a native of the country from which he's operating. In my recent operation from LO5D (Argentina) in ARRL SSB, several operators addressed me in Spanish or Portuguese. While I do speak Spanish, it is easier for me to copy English and I tended to pick off the English speakers first.

To wrap up this foray into phone, even if you are a dyed in the wool CW person, a hotshot RTTY jockey, or an FT8 aficionado, give phone a chance! This often-maligned mode can be exciting, action-packed and exotic. It is the closest that you can come to traveling the world without leaving your shack. You may find yourself morphing into a phone freak. CU in the contest.



AE6Y VP/CC JUG REPORT

For the coming club year, we have the following proposed slate of officers. We will be voting on this at the April Elections and Awards meeting. Thanks to these new volunteers for stepping up. Additional nominations are also welcome right up to the hour of voting.

President WD6T
VP/CC AE6Y
Secretary AA6W (incoming)
Treasurer W6DMW (incoming)
Director K3EST
Director N6WM (incoming)
Director AJ6V (incoming)
Past President W6FB

73, Gary NA6O NCCC Secretary

AE6Y VP/CC JUG Column

Andy Faber, AE6Y 3/7/22

Seeing that our Prez, Dave, WD6T, has devoted his column to phone contesting, I thought I'd do the same and provide an abridged version of an article I wrote for the NCJ a few years ago that was picked up and republished in several club newsletters. With some modifications, here goes:

This article was prompted by the 2018 WPX SSB contest, in which I worked thousands of guys from Aruba as P49Y, engendering much reflection (and teeth-gnashing, to be sure) about how U.S. hams and other callers can best be understood from the DX end (here I'm using "DX" as a shorthand for any station running at high rate). I'm not discussing relatively clear-channel domestic contests, but the situation where you are trying to get through to a DX station that may be under sonic assault from the pileup, plus atmospheric noise, ear-splitting splatter from adjacent stations, and all of the other acoustic annoyances that make many contesters prefer CW.



If there is no pileup and you know the DX station can hear you completely clearly, then you'll get through regardless, but if not, here are some suggestions:

First, be sure you are calling on his exact frequency. In CW contests, it can be helpful to separate yourself from the pack by calling off frequency, but that's not true in SSB. Off-frequency stations sound distorted and are hard to understand. The DX station may well come back to a weaker, but more intelligible station that is on frequency, even if you are louder. In order to work you, he has to figure out which way to adjust the RIT, and then go ahead and do it. A tired operator on the other end may just not bother until he has worked everyone else.

Second, make sure your audio is clean. It's so much easier to understand clear audio, even if it is weaker than a louder, distorted signal. The prize for the easiest audio to understand goes each contest to the hams from the British Isles. The G's, M's and their derivatives invariably have very clean (and usually nicely treble) audio that can be understood even when the signal doesn't budge the S-meter. On several occasions I chose a weak but clear Brit over a loud but distorted competitor.

Ok, so you have a clean signal and are calling on frequency, now how do you get the information through, both your callsign and your contact number (for WPX)?

Here are some tips:

If you are loud enough and have an easily recognizable call, you can skip phonetics. So this weekend, when K1AR called, he was easy to pick out, same for K3UA, K3ZO, N6AA, and a number of others. But for most guys, and when in doubt, use phonetics. Endless bandwidth has been expended on the subject of phonetics, and people have differing opinions on the topic, but here are my thoughts from being on the DX end.

The first thing to understand is that the standard, "recommended" international alphabet works dismally in marginal conditions. This alphabet, sometimes called the ICAO or NATO Phonetic Alphabet, was officially adopted in 1956, supplanting various competing military alphabets – so you'd think its deficiencies would have been remedied by now, but not so. Some of the words are too short, and some don't have unique sounds. Generally speaking, the one-syllable, words just get lost, while the two syllable words are better, and the longer ones are even better.

Thus, one-syllable words like "Fox" (often used in place of the official "Foxtrot"), "Golf" and "Mike" are horrible. Some of the two syllable ones are OK (e.g., "Hotel" and "Quebec"), but other pairs, such as "Alpha" and "Delta", "X-ray" and "Echo", and "Kilo" and "Tango" are easily confused. I worked a guy with the suffix XXE, and had to get a number of repeats until he finally said "X-Ray X-ray Ecuador," which did the trick.

I have a recommended two-step approach to avoid these problems. The first is to use these standard phonetics on your first call as a trial. If the DX station asks for a repeat, say your call twice, once with the standard phonetics and once with different ones. Don't just keep repeating your call the same way. Something in either the way you say it or the way the DX hears it is creating ambiguity. If you keep repeating the call the same way it may well be that part of your call is just hard to decipher, and it may not get any easier.



If the DX station is a good English speaker, then custom phonetics may work, such as "King George Six..." In fact, when I thought a KK4 station was a K4, he used a very effective phonetic, "King Kong Four..." WA2JQK uses "Jack Queen King" in domestic contests, but that won't work well for non-native speakers.

For alternate phonetics, I find that the easiest to understand mostly come from the geographical phonetic alphabet. This is not a standardized list, but seems to have evolved into a set of commonly used place names. The list features longer and more distinctive-sounding words, which are much easier to recognize. For example, if your suffix is, say, HLF, then you can say "Hotel Lima Foxtrot," then try "Honolulu London Florida." When I give my call with last letter "Yankee" and get asked for a repeat it works much better to say "Last letter Yankee, last letter Yokohama." Many of the geographical phonetics work particularly well for speakers of Romance languages like Spanish and Italian (e.g., terms like "Guatemala", "Nicaragua", and "Santiago").

Unfortunately, for a few letters there are no good geographical equivalents. Obviously, "X-ray" is one of them. Previous efforts for "X" weren't helpful either. For example, the pre-WW2 ITU alphabet used "Xanthippe," which suffers from the dual sins of obscurity (she was the wife of Socrates and the term is now applied generally, says Webster's, to mean an "ill-tempered woman"), as well as being pronounced by English speakers as though the first letter were a "Z", not an "X." For "Echo", "England" is sometimes used, but "Ecuador" is better. Although "London" and "Lima" are both two-syllable geographical terms, "London" seems to work better (a former British system used "Liverpool," but I haven't heard that one in years). And "Denmark Mexico" is many times superior to "Delta Mike."

Interestingly, some languages appear to have commonly accepted phonetics that are used for spelling names in that language, but English does not. German, for example, has a common system using given names (which, by the way, does use Xanthippe for X!), and the Italian system uses city names. Thus "Alfa Echo" in German would be "Anton Emil" and in Italian "Ancona Empoli."

I don't recommend using any of the words in the previous paragraph over the air. For my suggested alternative phonetics, see the table.

If the running station gets your call wrong, you must correct it at the start of your reply. For example, if I hear the runner come back to "Whisky Echo Six Yankee", I'll say: "Correct the call: Alpha Echo Six Yankee, America Echo Six Yankee, Five Nine [Number]." If you wait until the after you have given the exchange, the running station may already be saying "Thanks" to restart the pileup and may miss your correction.

Numbers in the callsign can also cause trouble. What if the station comes back to "K3" instead of "K6"? In general, just try to repeat the number, but if he still doesn't get it, you can try counting, e.g. "Kilo Six, 1, 2, 3, 4, 5, 6." Or for us West Coasters, "Kilo Six in California, West Coast" can be useful.

Which brings me to the general subject of numbers in exchanges like WPX. I commented in a 3830 post a few years ago that the English numbers that everyone uses are highly unsatisfactory for this purpose, most of them being just too short. Some are classically confusing, like "five" and "nine." Using an exaggerated pronunciation of "fie-ev" or "fife" and "nine-er" helps but doesn't eliminate the confusion.



I have recommended in 3830 postings using some Spanish numbers like "cinco" and "nueve", but that suggestion seems to have gone nowhere, though it can still be useful if you are trying to get through to a native Spanish or Italian speaker. In fact, in WPX, I just could not understand a number from a CO8 station with terrible audio. I kept asking, "your number 424?", "your number 242?", "your number 224", etc. Normally, one doesn't confuse "two" and "four," but this guy's audio was driving me crazy and I wasn't sure how well he was understanding me either. Finally, I had the presence of mind to ask in Spanish, and when he said "dos cuatro cuatro," he was in the log. If he had said that in the beginning I would have understood him in spite of his maladjusted audio.

In general, it's usually best to say your number twice in two different ways. For example it's often hard to discern "two three" from "three three". So you can say: "five nine, two three, twenty-three," since "twenty" and thirty" sound very different. Similarly, if your number is 15 and you say "one five", that might be confused with "one nine", so say "one five, fifteen." If it's late in the contest and you might be expected to have a three-digit number you can say "zero two three, only twenty-three" And if you have a one-digit number late in the contest, it's best to add zeros, saying, e.g., "zero zero nine, number nine", not just "nine."

This variable length of received numbers can be a source of confusion for the DX station, who will not know in advance how many digits to expect, particularly later in the contest when a number can have one, two, three, or four digits. There are a couple of ways to help. For example: suppose the DX station thinks he hears "[garble] six six" and he asks: "your number six six?" If your number is just six, you can say to be helpful "Negative. My number zero zero six, number six." Adding the word "number" in front of the first digit indicates there are no missing digits.

If your number really is 66, just say "Roger, roger." Don't repeat the number, because again it may be misheard. If it's 56, say "Negative, number five six, fifty—six." If it's 256, say, "Negative. Number two five six, two hundred and fifty-six" (I know we were taught that it is incorrect to say "two hundred and fifty-six," and we should just say "two hundred fifty-six," but using the "and" seems to make it more intelligible).

But what do you do if you didn't understand the DX station's question – suppose all you hear is "confirm you number [garble] six"? Since you don't know if he has your number correct, all you can do in that case is just to start over and repeat the number again. And, of course, occasionally in spite of your best efforts to communicate clearly, you may simply have to give up and move on, hoping that a solid contact can be made later in the contest.

I hope these tips from the DX end are helpful. Focusing on intelligibility is likely to be even more necessary in the next few years, as declining sunspots force us increasingly into the QRM alleys of 20 and 40 meters.

Here's my table of recommended phonetics:

Letter	ICAO	Grade	Alternate
А	Alfa	Fail	America
В	Bravo	ОК	Boston, Baltimore
С	Charlie	ОК	Canada

D	Delta	Fail	Denmark
Е	Echo	Fail	England, Ecuador
F	Foxtrot	ОК	Florida
G	Golf	Fail	Germany, Guatemala
Н	Hotel	ОК	Honolulu
1	India	ОК	Italy, Italia
J	Juliett	ОК	Japan
К	Kilo	Fail	Kentucky, Kilowatt
L	Lima	ОК	London
М	Mike	Fail	Mexico
N	November	ОК	Nicaragua, Norway
0	Oscar	ОК	Ontario
Р	Papa	ОК	Portugal, Pacific,
Q	Quebec	ОК	Quebec
R	Romeo	ОК	Radio
S	Sierra	ОК	Santiago
Т	Tango	ОК	Tokyo
U	Uniform	ОК	Uruguay, United
V	Victor	ОК	Victoria
W	Whiskey	ОК	Washington
X	X-ray	ОК	X-ray, not Xanthippe!
Υ	Yankee	ОК	Yokohama
Z	Zulu	ОК	Zanzibar



TUBE OF THE MONTH

Norm, N6JV

527

In WWII, General MacArthur had a problem and when the General of the Army had a problem, everyone had a problem. The RADAR equipment that had been installed in Navy ships worked well and produced outputs of up to 1 million watts in pulse. The issue was that when a battleship fired its big guns, the recoil would move the ship sideways and that shock would often damage the tubes in the ring oscillators. It took several tubes to get to full power and in battle, they couldn't afford the down time. The General wanted new tubes that were more powerful and especially more rugged.

EIMAC got the message very quickly and devoted much of their development effort into a new tube. The tubes that were commonly being used by the Navy were of the VT-127A family. These tubes had thin electrode attachments and were not very rugged. EIMAC started experimenting with all the improved components that would go into a new tube. At least 150 experimental tubes were made and tested. The result of this effort was the 527 triode that was ready in late 1944. The 527 is a 300-watt dissipation tube with a 5.5 volt at 135-amp filament. The coaxial filament attachment was very strong and the grid was attached with four heavy attachment points. The tube was tested for operation in a heavy shock environment. Four tubes in a ring oscillator would put out 1 million watts in pulse. The 527 was used in the SK, SK-1M, SR and the AN/TPS-18 systems. In about 1950, some EIMAC employees wanted to go out and start their own company. EIMAC gave them the rights to the 527 which they renamed the PL-185 and Penta Labs was formed.

Visit the museum at N6JV.com Norm, N6JV



NCCC Annual KB Competition Rules

Revised March 3, 2022



Current rules and standings are always available at http://nccc.cc/awards.html.

Purpose: To provide a means of rewarding NCCC members who are DX contesters, sprinters, VHFers, and especially active contesters in all modes.

Time period: The contest year starts at 0000 March 1 UTC. ARRL DX SSB is the first contest of the year. NAQP RTTY is the last.

Eligible contests: Currently, points from 33 contests are counted. See the table on the next page

Scoring: Score = N_Contests * sum of (points for each contest * each contest's multiplier).

Where N_Contests is the number of contests in which you participated.

NCCC weekly sprints are special. Points for the entire year are added up, but it is only counted as a single contest.

Multi-ops: Points = total score divided by the number of operators.

Station owners: A station owner who *does not participate* in a particular contest receives 25% of the points.

Valid scores: Only scores posted to <u>3830scores.com</u> are counted. Scores obtained by use of High Power in the 6 NAQP competitions and the NS CW/NS CW Ladder series will not be counted for the



KB competition, either as scores or as contest multipliers. Scores are counted regardless of which club received the contest points (NCCC, MLDXCC, REDXA, PL259, etc.). The only requirement is that you MUST be an NCCC member to receive credit for the contest, and to be eligible for an award.

Brackets: There are four independent brackets for the purpose of awards: 1-Platinum, 2-Gold, 3-Silver, and 4-Bronze. Brackets are assigned at the beginning of the contest year according to your final position in the previous year's standings.

Awards: Paid NCCC members may receive awards.

How to Improve Your Standing

- Post all your scores on 3830. Those are the only ones that count.
- Participate! Even the smallest score has value. Every contest on the list is a multiplier.
- Try a new mode or a new band (VHF, 10, 160).
- Try the sprints. Small score, big multiplier.
- Go for a big score in WPX: Exponential score growth.
- Join a multi-op: The score is split among ops.
- Let someone else use your station: You get 25%.

Comments are welcome, as always. I log and track every comment and suggestion and try to improve the KB Competition each year. The one thing I can guarantee is that each year will be different!

Contact: Gary NA6O, NCCC Awards Manager, gwj@me.com

Contest	Date	Mult
ARRL DX Contest SSB	March 5	8
CQ WPX SSB	March 26	3
JIDX CW	April 9	25
7QP	May 7	25
NEQP	May 7	100
CQ WPX CW	May 28	1
ARRL June VHF	June 11	200
All Asian DX CW	June 18	15
RAC Canada Day	July 1	15

IARU HF World Championships	July 9	10
NAQP Summer RTTY	July 16	25
NAQP Summer CW	August 6	25
NAQP Summer SSB	August 20	25
WW Digi	August 27	20
CQWW RTTY	September 24	5
NA Sprint Fall CW	September 11	150
CQP	October 1	10
Makrothen RTTY Contest	October 8	1
CQWW SSB	October 29	6
ARRL Sweepstakes CW	November 5	15
ARRL Sweepstakes SSB	November 19	15
CQWW CW	November 26	3
ARRL 160 Meter Contest	December 2	30
ARRL 10 Meter Contest	December 10	15
RAC Winter	December 17	25
ARRL RTTY Roundup	January 7	50
NAQP Winter CW	January 14	25
NAQP Winter SSB	January 21	25
CQ WPX RTTY	February 12	2
ARRL DX Contest CW	February 18	4
NA Sprint Winter CW	February 5	150
NAQP Winter RTTY	February 26	25
NCCC Sprint CW	Weekly	50
		-



KB Award Brackets

There are four independent brackets for the purpose of issuing awards: 1- Platinum, 2- Gold, 3-Silver, and 4-Bronze. Your bracket is assigned automatically at the beginning of the contest year according to your final position in the previous year's standings. New members or those who have never posted a score to 3830 default to the Bronze level.

Platinum	Gold	Silver
AD6E	AF6SA	AE6JV
AE6Y	K3EST	AJ6T
AJ6V	K6LRN	K0JP
K2RD	K6NV	K0MKL
K5RC	K6OK	K6CSL
K6AW	K6RIM	K6DGW
K6EI	K6TD	K6JS
K6GHA	K6TQ	K6KLY
K6KM	K6UFO	K6MR
K6MI	KE6GLA	К6ТЈ
K6MM	KE8FT	K7NV
K6SRZ	KH6LC	K7XC
K6XX	KH7Y	K8TR
K7GK	KX7M	KA6W
К9ҮС	N0KQ	KF6NCX
KA6BIM	N3RC	KG6AO
N6IE	N3ZZ	КН2ТЈ
N6RO	N5KO	KO6LU
N6TV	N6DW	KW6S



N6WM	N6GQ	N3KA
N6ZFO	N6JV	N6DE
N7MH	N6KT	N6GEO
W0YK	N6TTV	N6PN
W1RH	N6XI	N6RK
W1SRD	NC6R	N6YEU
W6DMW	ND2T	N9YS
W6NV	NT6V	NA6O
W6SX	W6DR	NR6Q
W7IV	W6EU	NW6P
W9KKN	W6IA	OH1VR
WB6JJJ	W6JTI	W6BG
WC6H	W6LD	W6BRY
WD6T	W6OAT	W6FA
WK6I	WA6O	W6FB
WX5S	WE6Z	W6SC
		W6SR
		W6XU
		WU6P
		WU6W
		WX6V



XXXIII Sprint Ladder Competition, Jan.-Feb. 2022

Division Winners:

"Atlantic" - N4AF
"East Central" - W9RE
"West Central" - KZ5D
"West" - N5ZO
"NCCC in CA/NV" - WD6T

Top 10 scores:

- 1. N4AF 10547
- 2. W9RE 10102
- 3. K7SV 9756
- 4. KZ5D 9002
- 5. N3BB 8450
- 6. N5ZO 8434
- 7. KW8N 8349
- 8. K7SS 7854
- 9. WD6T 7820
- 10. N3QE 7756

For all the details, here's the link: http://n3ge.org/ladder.html



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.

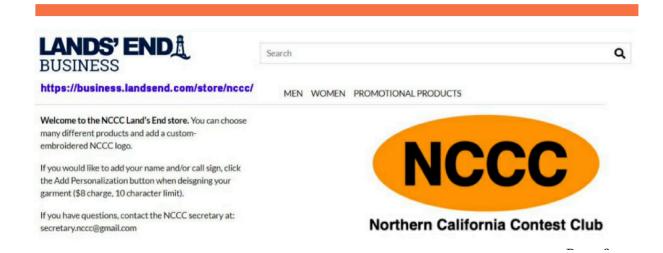
Go to https://business.landsend.com/store/nccc/ It's easy to use.

From nccc.cc: http://nccc.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.
- 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.







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

'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









IC-9700 All Mode Tri-Band Transceiver





TS-590SG HF/50MHz Transceiver





FT-991A HF/VHF/UHF Transceiver





TM-D710G 2M/440 Dualband



HF+50 MHz All Mode Transceiver



IC-7100



TM-V71A 2M/440 DualBand



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



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



TM-281A



FTM-400XD



HF/50/144/430 MHz All Mode Transceiver



TH-D74A



C4FM/FM 144/430 Xcvr



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SALEM, NH (800) 444-004

Contact HRO for promotion details. Toll Free including KLT, VE and KHS. 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 police.