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NCCC - 50 years of Contesting Excellence

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President's Report - WD6T

Announcing a New NCCC Member of the CQ Contest Hall of Fame

Bob Wolbert, K6XX



NCCC June ZOOM Meeting Saturday, June 5, 2021 1230-1500

"Where Does Your Log Go?"

Randy Thompson, K5ZD

Short presentations:

N6TV — Tips on COM Ports K3EST — All Asian CW, Strategies

http://nccc.cc/meetings.html

The CQ Contest Hall of Fame was established in 1986 to recognize those amateurs who have made major contributions to contesting. Each year, the Hall of Fame Committee chooses two or three inductees from nominations received from the major clubs and others. It is with great pleasure that I share the news that long-time NCCC member Bob Wolbert K6XX has been inducted into the CQ Contesting Hall of Fame. The wheels were set in motion by former NCCC president Jack Brindle W6FB with a nomination in early 2020. A year later, I submitted a second nomination, and this year, Bob was selected as one of the two 2021 inductees.

Ordinarily, the Hall of Fame award is presented at the Dayton Hamvention. However, for the last two years, Covid-19 restrictions have necessitated cancelling the inperson convention, in favor of an on-line Zoom webinar format. Thus, on Thursday, May 20th, following the virtual Dayton Contest Universtity, Bob was formally inducted by John Dorr K1AR. Introducing Bob was his partner in the Russian WRTC, Rick Tavan N6XI. Bob then spoke of his



Officers:

President David Jaffe WD6T **Vice President / Contest Chair Andy Faber** AE6Y Treasurer **Stefan Nikov** AF6SA Secretary **Gary Johnson NA60 Jack Brindle Past President** W6FB Roberto Sadkowski Director K6KM **Director: Bob Cox** K3EST **Director: Rich Smith** N6KT

Volunteers:

Charter Member Rusty Epps W6OAT Awards Chair **Gary Johnson** NA60 CQP Chair Dean Wood N6DE **K6ZM QSL Manager George Daughters** K6GT K6CQP,N6CQP,W6CQP QSL Mgr Ed Muns W0YK **NCCC Email reflector Admin** W6PK Phil Verinsky Webmaster John Miller K6MM Webinars **Bill Fehring** W9KKN JUG Editor **Bill Haddon** N6ZFO

Thursday Night Sprint:

The Northern California Contest Club sponsors a Thursday Night Contesting session of thirty minutes 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 American 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

NCCC Sprint Ladder

Sprint Web master www.ncccsprint.com
Ladder Scores Manager

Thursday night Contesting Advisory Group:

Ken, K6MR

Bill, N6ZFO
John, K6MM

Tim N3QE

N6ZFO, Bill (Chair)

Mark K6UFO, (with W4NZ, N4AF, W9RE, K4BAI, N3BB, VE3YT and W0BH).

The Thursday night NCCC Net Ken, N6RO



career in ham radio, with engaging anecdotes and thanks for his mentors. Of course, in typical Dos Equis fashion, he threw in a few wry jokes along the way. I only wish the Zoom audience could have been unmuted at that point to hear the chuckles.

While Bob is well-known in NCCC, it is worth reviewing why he deserves this honor. Bob is a "ham's ham," with extraordinary skills in both station building and operating. He has won numerous domestic and international contests, including many CQP wins along with wins in All-Asia, ARRL DX, CQ WW DX and CQ WPX. Bob was a critical member of the organizing committee for the 1996 WRTC and participated as a team leader in the 2010 and 2018 WRTC competitions, while providing support in the 2000 and 2014 efforts. He is a nine-time winner of the Jim Maxwell Memorial Trophy, awarded annually to the highest scoring California single operator unassisted in the ARRL CW DX Contest. He is also a twenty-time winner of the NCCC Founder award, which recognizes the NCCC member with the highest combined CW + SSB scores in the CQ WW DX Contest.

Bob generously shares his time and expertise with other contesters, presenting at NCCC meetings and conventions such as Pacificon and the Contest Academy at the International DX and Contesting Conference in Visalia, and publishing articles in National Contest Journal and the JUG. He has served NCCC as President, Vice President/Contest Chair, and most recently, as a member of the Board of Directors. As editor of the NCCC Sweepstakes Manual second edition, he helped the NCCC to win numerous Sweepstakes club gavels. In his professional life, he has made critical contributions that have pushed the envelope of contesting technology for such products as the Elecraft K3, K3S, KPA500, KPA1500 and K4. He also gives his time to his community and is active in ARES and emergency services for Santa Cruz County, as well as organizing many Field Day efforts.

This year's other inductee was K8CC David Pruett (who died last year at the age of 66). David was a former editor of NCJ, and was well-known for writing one of the first computer logging programs. He was a WRTC competitor when NCCC sponsored the contest, coming in 10th place. He frequently operated from the Caribbean and was also an accomplished pianist.

The complete list of NCCC CQ Contesting Hall of Fame members, in order of induction over the last twenty-six years, is as follows:

1995 - Jim Neiger N6TJ

1996 - Bob Cox K3EST

1997 - Carl Cook Al6V (SK)

2003 - Ken Keeler N6RO

2004 - Trey Garlough N5KO

2005 - Rusty Epps W6OAT

2007 - Tom Taormina K5RC

2014 - Ed Muns W0YK

2017 - Bob Wilson N6TV

2019 - Dean Straw N6BV

2021 - Bob Wolpert K6XX

73 Dave, WD6T



June 2021 VP/CC Report — Andy Faber, AE6Y/P40Y

I'm starting to write this column from Aruba, in the house owned by John, W6LD, and myself, the P40L/P49Y station. We have owned the QTH for almost 20 years now, having originally purchased it from now-SK Club member Carl, Al6V, P49V. You can learn more about it at www.arubaqth.com and in the January 2020 JUG. Our Contest Results page now has results from some 172 contests (soon to be 173 when I post the information on WPX CW).

This was my first visit since last October. Not yet being fully vaccinated, neither John nor I nor Ed, W0YK, wanted to travel for our normal ARRL DX contests nor for WPX SSB, but W2GD filled in for ARRL CW and KK9A for WPX SSB, so the station was at least partly active.

There seemed to be lots of Club activity, and many of us were trying out interesting and obscure prefixes on in the contest. As VP/CC, it was a pleasure to see this enthusiastic sprit of contesting. It seems clear that propagation on 40 and 20 was very good worldwide (including in NCCC territory), but that 15 was better the further south you were.

I'm hoping that we can put in a similar home-territory based effort for 2022 WPX. If we can do that and also motivate some expeditions, we can do very well as a club. This was our recipe for success the last time we had a major Club victory in this contest.

I was diffident about traveling for WPX CW, but after the contest, and with no obvious medical symptoms of concern, I am glad that I did. This was mostly a fun contest. Here is my 3830 writeup, to summarize what the contest was like from Aruba:

I got off to a bad start Friday night on 40, on a very crowded band with a lot of atmospheric noise (which calmed down later) and an op feeling very rusty and uncoordinated (the op calmed down later, also). I was seriously discouraged, but forced myself to remember that Friday nights are usually the hardest in contests from here. Needless to say, once I got in the contest groove, it became much more fun.

And some friendly assistance from the ionosphere certainly helped greatly. 40, 20, and 15 were all in great shape here. It was particularly fun to work 20 near midnight and get the old-fashioned, high-sunspot over the pole propagation to deep Russia and Asia. I could easily have spent a lot more time enjoying dx-ing on 20, but the classic category forces choices. 15 produced my highest hourly rates Saturday afternoon. 80 was very noisy and unproductive compared to 40. I never tried 10, because the opening I did hear Sunday morning seemed to be shallow and focused on the East Coast, so there was no point in experimenting while 15 was hot.

Early in the first hour, while looking for a frequency on 40, I called P44W, and I think I may have made one more S&P contact in the contest. But other than those, I only turned the tuning knob to try to find a clear frequency, and my contest procedure this time was 100% running.

I was using a K4 field test unit borrowed (with Elecraft's consent) from N6XI (thanks, Rick!), and it was pleasure to use the new, colorful and more computer-controlled display. In general, it's backwards compatible with a K3 for external connections, so is very easy to get it working if you are used to a K3. The Elecraft crew have been working on this radio for quite a while, and their work has paid off with a very user-friendly and technically top-

notch radio. Thanks guys for the loan!

Our new suite of antennas from just barely pre-Covid times worked great, and the directionality on 20 and 15 was helpful in narrowing the pileups somewhat, which often came from NA and EU at the same time.

I have enjoyed the classic category in CQWW DX contests on several occasions, and thought it would be fun in WPX as well, now that it is officially a 24-hour category. There's always off-time strategy calls to be made in this contest in the SO category for 36-hour operation, and even more so for 24. I also enjoy getting some real sleep time, and the feeling that if you are going crazy and just need a break, or want to enjoy a leisurely meal, you can just take an hour off and not feel guilty about the non-radio timeout.

The social scene on Aruba is slowly inching towards normalcy. It's still a pain to have to get tested before coming (within 72 hours of flight time, the Aruba requirement), and then get tested again before leaving (within three days of flight time, the CDC requirement). At least on the latter front, there are now a multitude of convenient 7-day a week walk-in test sites, and John, W2GD, and I went to the same one in slow contest time Sunday morning for our exit test.

On this visit it's been fun to see some Aruba regulars: JP, P43A, and Cris, P43C; John, W2GD/P44W; John KK9A/P40A; Lisandro P43L and Lissette. On my last visit in October, social interactions were sharply reduced by a curfew and strict restaurant social distancing protocols, but these are in the process of being lifted, so we'll be able to have our usual good times here.

Thanks as always to co-owner John, W6LD, and soon to be returning after vaccination Ed, W0YK, for their station maintenance efforts and to Cris and JP for their work on the house. And thanks to everyone around the world for all for the great contest participation this year.

Some Recent Club Contest Results

Some contest results were reported at the last meeting, but I also want to use exposure in the JUG to honor these fine efforts by Club members. I'll be reporting some other Club results next month. These come from published sources: CQ Magazine and the NCJ

- CQ WW RTTY, Sept. 2020
- 1st place World SOHP, ZF1A (W9KKN)
- 1st place U.S. SOHP, W7RN (WK6I)
- 1st place U.S. Rookie, K6KM
- 1st place U.S. 14 MHz. K6GHA
- 2d place U.S. Multi-Multi, N6WM K3EST K6AW N6RO N6WM WD6T
- 3d place U.S. Classic HP, AJ6V
- CQ WW SSB, Oct. 2020
- 1st place U.S. 14 MHz, K6GHA
- 1st place World Classic HP, P49Y(AE6Y)
- 3d place U.S. Rookie, K6KM
- 4th place U.S. Multi-Multi, K3EST K3EST K6AW N6RO N6WM WD6T WX5S
- CQ WW CW, Nov. 2020
- 1st place U.S. Rookie, K6KM (And 3d place World Rookie)
- 2d place U.S. QRP, W6JTI
- 2d place Zone 3, K6XX
- 4th place Zone 3, N6TV
- 5th place U.S. Multi-Multi, N6WM K3EST K6AW K7GK N6RO N6WM NT6V WA6O WD6T WX5S
- NA Sprint RTTY, Oct. 2020
- 2d place HP (by 1 Q!), K6MR
- 3d place HP, WD6T

- 10th place HP, AJ6V
- 2d place Team, K6MR, WD6T, AJ6V, W6SX, W0YK NCCC had 9 team operators, more than any other club
- NAQP CW, Jan. 2021
- A tough one!

NCCC had 11 of top 20 CA scores

But none in top 10 in contest

And top team finished 14th (of 136)

Becoming a 2BSIQ contest

- 5th place QRP, W6JTI
- 7th place Multi-2, N6RO K3EST K6AW K7GK N6RO WA6O

•

- NAQP SSB, Jan. 2021
- 3d place HP, W7RN(N6KT)
- 4th place Team, W7RN,K2RD, AE6Y, W9KKN, N6ZFO
- 5th place Multi-2, N6RO N6RO N6WM WD6T WX5S
- NA Sprint CW, Feb. 2021
- 2d Place HP (by 3 Qs), N5KO (@W6NL/K6BL)
- 5th Place HP, N6TV
- 1st Place Team, N5KO, N6TV, W6YX, AE6Y, W6SX

New Sprint Team Record for 5-person teams! NCCC had 3 teams, more than any other club

Here's a Sprint pome to honor our masterful CW Sprint coach and cheerleader, Bob, W6RGG, on our new Sprint record:

We're fielding great teams one, two, three. (I am standing says Bob, 'RGG).
N-Triple-C's our name,
CW's our game,
And winners we always will be!

Log Checking Thoughts

At our last meeting, Doug, K1DG, gave a fascinating presentation about the vagaries of contest operation, as seen by examination of one's LCR (Log Check Report) after the contest. His presentation is available on the web, and I commend it to anyone who missed the meeting.

I normally don't think much about LCRs, other than to look mine over briefly to see if the error rate looks reasonable. I figure there is always a tradeoff between accuracy and rate, particularly if you are mostly running stations in the contest, so as long as the error rate is just a few percent, I figure any mistakes in the log checking will even out in the long run for everyone.

But I had occasion to pay more attention to my LCR for the 2020 CQWW DX SSB contest last October. As mentioned above, I had entered the Classic category and reported a score about 70k (out of almost 5M) points behind 5B4AMM at P3X. I had almost 800 more QSOs at P49Y, but he easily beat me on mults (420 to 351), being so close to Europe. So while I thought the result might come down to log checking, it didn't seem that there was much chance to catch up.

In December the CQWW Committee emailed me my log checking report with the request that I look it over, though it wasn't exactly clear what they wanted me to look for in the review. Anyway, as I said above, I normally don't bother to review these, but this time I did. As required by the rules of that contest, I had tape-recorded the whole thing (using, BTW, an approach written up a few years ago by Bob, K6XX and published in the JUG). So I dutifully attempted to listen to all the QSOs that had problems. Particularly, in this contest the tough ones are

NILs (where you are not in the other guy's log) and incorrectly copied callsigns of stations you worked. In each of those cases you lose the QSO plus a penalty of two more QSOs. If you just get the exchange wrong, you lose the Q, with no further penalty.

The LCR said I had eight NILs. Upon reviewing the recordings, I thought six of them were actually good contacts. At least one was a loud, clear as a bell, but out-of-band RT4 (i.e., he called me above 7200 kHz, and then probably scrubbed it from his log before sending in the log). The others were clearly valid contacts, and in a few cases you could trace through the other op's log to show that this one fit in perfectly. Roughly another 10 Qs labeled as having incorrect calls were actually correct. So the net result was that 16 of my 51 "penalty" QSOs should have been credited. I emailed this response to the Committee (without specifics) and received a reply from K1AR saying that since the recordings aren't public, there is nothing they can do about it. So it was an interesting exercise, but ultimately led to no change in their analysis. I guess they were asking me to look for some kind of systematic, gross error, not specifics of individual QSOs.

It was actually instructive to try to characterize the mistaken QSOs into categories. Some were copying errors, where I just seemed to hear the call wrong. A few were sheer tiredness mistakes, several were typing errors (e.g., logging K1TT for K1TTT). And for a few there was no real explanation (or, as Doug said in his presentation: "stuff happens").

Anyway, the irony is that P3X's log apparently was in much worse shape than mine. For example, he lost five mults while I lost none. Log checking moved me ahead of him by the narrowest of margins, just 6000 points, which corresponds to about 6 QSOs or one-half a mult. The official article said: "There was a tight horse race in the Classic category this year, with P49Y (AE6Y) squeaking by P3X (5B4AMM) by only 6,000 or just a handful of QSOs at 4.77 million. It's a reminder that maintaining consistent intensity of operation can often make a difference for serious entries." To which I would add, "so can a bit of deserved or undeserved good fortune!"

Some Upcoming Contests

Here are a few upcoming contests of interest. There are many, many more listed on WA7BNM's wonderful website: www.contestcalendar.com

June 5-6 KY QSO Party
June 12-14 ARRL VHF [KB Contest . Ed]
June 19-20 All Asian DX, CW
June 26-27) ARRL Field Day (I know, I know...)
July 1 RAC Canada Day [KB Contest, Ed]

73, Andy AE6Y



UHF Female Connector for 3/4-inch CATV Hardline Gary, NA6O

CATV hardline is often cheap or even free, making is popular for ham radio use even though it's impedance is 75 ohms. Hardline comes in several diameters; this article addresses the 3/4-inch OD version. The challenge is installing connectors. Since most of us use UHF (PL-259) types, here is one way of making that termination from common hardware. Since I have a machine shop with a lathe, life is easier, but you could do this with simpler tools.

The aluminum shield is exactly 3/4 inch diameter, so we start with a 3/4-inch brass compression union. Half of it, just beyond the hexagonal center section, will be cut off in the lathe. You could do this with a hacksaw, then clean it up with a file. Keep the spare nut and compression ring, just in case.

FYI, there is some confusion about tubing sizes and fittings. Refrigerator tubing—the soft, flexible kind—has an outside diameter that is exactly equal to the nominal diameter: 3/4 inch tubing is in fact exactly 0.750" diameter. Meanwhile, rigid copper pipe (type L or M) follows a different size schedule and its OD is larger than the nominal diameter by exactly 1/8 inch. Compression fitting are available for both systems. The particular fitting I bought was an **Anderson Metals 50062-12**, available at Amazon.



A generic PL-258 double-female UHF connector with PTFE center insulator is chosen because that Teflon won't melt during soldering. It will have a tight fit when pressed onto the cable's center conductor, which is about 6 to 10 mils oversized compared to a standard PL-259 pin.

The threads on one end must be reduced in diameter to fit the bore of the compression fitting. Alternatively, the fitting could be bored out. The objective is a close fit suitable for soldering. Bore diameter was 0.564 in while the threads were 0.620. So the bore could have been carefully drilled 5/8" and the fit would likely be acceptable. Instead, I chose to turn the threads down on the lathe, holding the connector with a 5/8 collet.





The parts, ready for soldering

A torch is required for soldering. Be sure that the parts are squeaky-clean. Fine steel wool works great to remove any oxidation. Apply flux to the parts before slipping them together. I use the paste flux sold for soldering copper pipe; it washes off with water. Balance the parts on the end of a steel rod or maybe a large socket to keep the end of the connector flush with the end of the bore in the fitting. Wrap a piece of 1/16" solder around the joint and heat from the bottom. It'll flow into the joint real nice. Don't overheat. When cool, scrub everything off with water and alcohol.





Prepare the CATV cable as follows. Be sure the end you're working on is undamaged and has no kinks.

- 1. Remove the outer insulation, if present, at least 1.25 inches from the end.
- 2. Use a tubing cutter to make a clean cut thru the aluminum shield 1/4 inch from the end.
- 3. Remove all the foam insulation with a knife. The objective is to have a clean 1/4-inch long center conductor exposed.
- 4. Clean any contamination from the center conductor, leaving only shiny copper. I use 400-grit silicon carbide paper. Don't get carried away and cut all the way through to the aluminum core. If you do, start over. Use a fine file to create a very slight chamfer on the end of the conductor, making it easier to insert into the connector.
- 5. Apply dielectric grease to the center conductor and the exposed dielectric. I recommend Dow Corning 4 compound. This will repel any moisture that enters.
- 6. Since we are mating brass to aluminum, it is mandatory that you apply an anti-corrosion compound to the aluminum jacket. Noalox or Penetrox (both zinc-based) are recommended.
- 7. Slide the connector assembly onto the cable. The connector will be a tight press fit. Make sure it is fully seated and don't let it escape.
- 8. Using two wrenches, tighten the compression fitting until it has a very firm grip. If disaster strikes, or you need to reuse the whole thing, you can start over because there is another compression collar left over.

After assembly in the field, you should waterproof your connectors in the usual way. This assembly is intrinsically waterproof but water can still leak into your PL-259.

NCCC KB Awards for 2020/21

The KB Award system replaced the ARRL Sweepstakes Awards as NCCC's internal competition several years ago. W1RH initiated the KB award plan. It is administered by Gary, NA6O, the awards Chair for NCCC and Matt WX5S, the software wizard behind the programming curtain. To see current rules, standings and raw data push the AWARDS button on nccc.cc and follow the appropriate links.

Here's a brief accounting of the previous years winners. For the first two years all stations were in a single category. The award system became so popular and competitive that four awards sections were created. . Platinum, Gold, Silver and Bronze with membership assigned by a operator's previous year's score. These NCCC members are the previous winners from the unlimited and Platinum categories:

2016:K6SRZ, K6MR, KA6BIM

2017:N6ZFO, KA6BIM, W6SX

2018: (Platinum) W6SX, N6ZFO, KA6BIM

2019: (Platinum) W9KKN, WD6T, W2SC

2020: (Diamond): W9KKN Platinum: KA6BIM, N6ZFO, WD6T

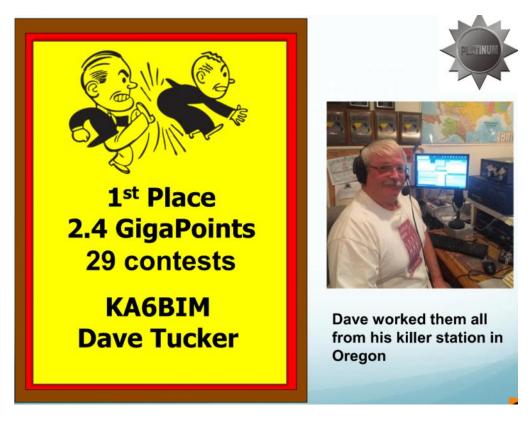
For the 2020/2021 contest year the impromptu Diamond Award category was created to recognize the truly exceptional performance by Bill, W9KKN using exclusively remote contesting, often from high scoring DX stations.

Plaques for the awards were sponsored by: N6XI, W6CZ, NW6P, KA6BIM, AE6JV, W2SC, W7IV, W1RH, K0XI, N6TV, N6SJ, W9KKN and W6FB. A big thank you to all!

Here are the 2020/21 KB award winners in the various divisions of the competition:



2020/2021 Platinum KB Winners





2020/2021 Gold KB Winners





2020/2021 Silver KB Winners





2020/2021 Bronze KB Winners











Bronze Plaque Winners





Point Generator Profile Carl Mannle, N6TVN

Interviewed by W1RH

When I started this column several years ago, my goal was to feature some of the lessor known members who generate points for this great contest club. Take Carl, N6TVN, for example. Carl participated in an amazing 96 contests in 2021! Most were the NCCC Sprints and CWOps, and Carl was in the hunt week after week after week. It isn't only the weekly tests, however. You'll find Carl supporting NCCC's efforts whenever he can and, most recently, that meant 300+ Q's on CQ WPX CW.

Now, let's hear from Carl

Name/Call Sign: Carl Mannle, N6TVN

Past calls: . I held the call sign, K0OVR, in 1958, 59, 60 and 61 when I was in High School. in Sioux City, Iowa. At present, I live in Sonoma. I was off the air for many years and got back on when I retired in 2015. I am an Army veteran and was assigned to Signal Co., 5th Special Forces Gp.(Abn) in Vietnam, during 1965, 66, and 67. I hold a B.A. in Liberal studies from Sonoma State University.

Location: Sonoma, CA

How much property do you have? Fortunately, we live in a very antenna tolerant neighborhood, on a double lot, 100 by 120 feet .

Describe your antenna system: My Mosley beam has eight elements and was assembled from a TA34, an S402m and a TW31. It has a 24 ft boom and is roughly comparable to a PRO67. I have an AB577 mast to raise it to 38 ft AGL. For 160 and 80 I use an Inverted L over a K2AV folded counterpoise. Future antennas, who knows??? I am always looking for improvements or some of Hank's "free db."

What's in your shack? In the shack at present is an FTDX5000MP, a K3/P3, and a K2.

If you're working, what is your career? If not, what was your career? My working career was spent doing carpentry and woodworking. A friend and I started a high end, custom cabinet business that went on for 33 years until I retired in 2015. At that point I saw an ad for a VE session by the Valley of the Moon Amateur Radio Club and became KK6TVN then shortened to N6TVN.

Married? Kids? Grandkids Barbara and I have been married for 51 years and have 4 children and 4 grandchildren.

How many DXCC entities have you worked? I enjoy DX and my present total is 212 worked and 209 confirmed. I am looking forward to dx-peditions resuming as Covid subsides and Cycle 25 starts to bloom.

What's your favorite contest? The CQP is my favorite contest followed by the NS, the CWT, and 7QP. I try to get in on most CW events and pick up the mike in SSB events occasionally. I think contests are a great way to develop skill by learning from the best ops. My strategy and advice for contests is to have fun because if you are having fun you are winning no matter what else may happen.

What would you like to see changed in NCCC? An incredible group of people belong to NCCC and are more than willing to share their knowledge, we need to keep that going.

Any other hobbies besides ham radio? If I'm not in the shack I might be in the kitchen because my second hobby is cooking.



The N6TVN Shack. FTDX5000MP, a K3/P3, and a K2 plus accessories.



The N6TVN Antenna Farm in Sonoma, CA.

Ed. Note... N6TVN started showing up in the NS some time ago. Realiing he was nearby, I twisted Carl's arm to join the NCCC. It didn't require much twisting. But interestingly there was a rare no vote to the nomination from, of course, N6TV. Bob, it could be (slightly) worse if Carl's call was N6TVE. And, congratulations to Carl for his receiving the NCCC "Rookie of the Year" Award for 2020/21 .. See the May 2021 JUG. In the award picture of N6TVN you will see that N6TV and N6TVN have something else in common beside similar call signs.

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Tube Of The Month 8964

Norm, N6JV

The last analog TV transmitter at KOVR in Sacramento was a Harris TV50H. This generation of 50 KW transmitter only used a single tube in the final amplifier. The tube was the **8984_**which is a 40 KW dissipation tetrode with full output to 300 MHz. The tube used a maximum of 15,000 volts at 12 amps and 12.5 volts at 155 amps on the filament. The tube weighs 60 pounds which explains the heavy handles. This is one of the largest high-power tubes that is air cooled. This tube was designed by RCA and continued to be produced by Brule.

The Harris Corporation has a very early pedigree. In 1922, a small family run company called Gates Radio was formed. They would go on to make many commercial transmitters especially in the AM market. Gates was purchased by Harris in 1957, but the name was retained until 1975 when it became Harris. The company had procured the TV transmitter business from General Electric previous to this. Harris got out of the transmitter business in 2013, but a new entity, GatesAir, had split off the larger company and started transmitter production again. Old Gates AM broadcast transmitters are still popular with the amateur AM operators.



The 8984 40kW TV Transmitting Tube

Visit the museum at http://n6jv.com



NCCC Membership Information

If you wish to join NCCC, please fill out an <u>application for membership</u>, which will be read and voted upon at our monthly meeting.

To join, you must reside within <u>club territory</u> 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 the NCCC Secretary...

80/20 Members: Members who have reached 80 years of age have and been a NCCC Member for 20 years are eligible for Honorary life membership. Contact the NCCC Secretary.

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 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 Bill, N6ZFO at n6zfo@arrl.net 415 209-3084

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 excessive off-subject posts. Such postings will be considered a violation of the Guidelines.

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



Find NCCC on Social Media
Facebook: "Northern California Contest Club"
Twitter: "NCCCKB"





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 anywherein 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 KPA500 and KPA1500 amplifiers

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



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.

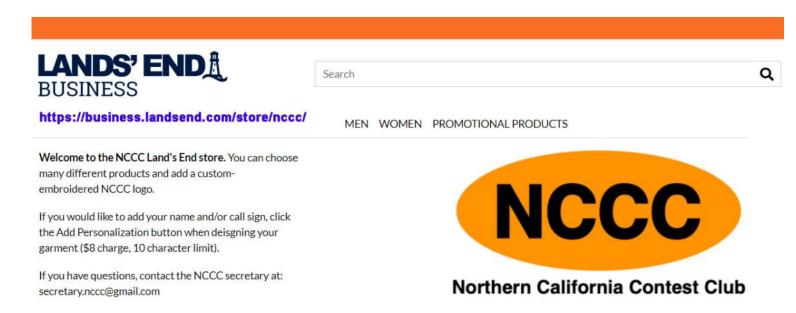
And, you can personalize your item by adding your name and/or call sign. The store is open 24/7 and items are shipped directly to you. No more waiting for everyone else to make up their minds on a group purchase.

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 the Lands' End NCCC Store:

- 1. Go to https://business.landsend.com/store/nccc/
- 2. Click on the Men's or Women's link, and then choose an item.
- 3. Pick a color, then enter the 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. On shirts, for instance, you can place the logo in one of several locations.
- 6. Click Apply Logo.
- 7. Optionally, click Add Personalization to add your name and/or callsign (\$8 charge, 10 character limit)
- 8. Click Add to Bag. Keep shopping, if you like.
- 9. Click Start Secure Checkout. Account creation and credit card required.

HAM RADIO OUTLET

MULTI-STORE BUYING POWER!





IC-9700 All Mode Tri-Band Transceiver





TS-590SG HF/50MHz Transceiver





FT-991A HF/VHF/UHF Transceiver



IC-7300 HF Transceiver



TM-D710G 2M/440 Dualband



FT-891 HF+50 MHz All Mode Transceiver



IC-7100 All Mode Transceiver



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 2 Mtr Mobile



FTM-400XD 2M/440 Mobile



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



TH-D74A 2M/220/440 HT



FT-70DR C4FM/FM 144/430 Xcvr



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