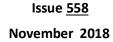


Publication of the Northern California Contest Club



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NCCC Holiday Meeting

Saturday 15th December

Michael's at Shoreline

2960 North Shoreline Boulevard, Mountain View, CA 94043

Sign up Here

Or visit <u>nccc.cc/meetings.html</u>

11:00 am - 3:00pm

Presidents Report:

Once in a while something new comes along to grab the attention of the ham radio world. In the 1950s it was Single-Sideband, then in the 1980s packet radio became a big hit. We all know the results of the SSB revolution - we use this mode quite often. Packet radio was a huge hit in the 80s, at first leading the way at VHF and UHF showing huge data transfer potential (especially with the GRAPES 56K modem) and eventually evolving into today's WIFI. At the same time it spawned a series of HF modes - starting with HF Packet, then over time morphing into the various PSK modes we have seen for transferring data a little at a time. These modes grabbed the attention of various signal and mathematical types who applied mathematical analysis and techniques to the signal coding, leading the W1JT's release of the FT-8 mode about one and a half years ago.

The thing that really makes these modes stand out is their use of mathematical predictive phase encoding along with forward error correction to determine what successive bits should be based on previous bits and apply the modulation thusly. On the receive end the decoders apply the same techniques to determine that a bit should be a one or zero based on the mathematical sequence of previous bits.



Officers:

President Jack Brindle W6FB jackbrindle@me.com Vice President /Contest Chair Chris Tate N6WM ctate@ewnetinc.com treasurer.nccc@gmail.com Treasurer Tom Carney K6EU Secretary Ian Parker W6TCP secretary.nccc@gmail.com Past President **Bob Hess** W1RH w1rh@yahoo.com Director Rick Tavan N6XI rick@tavan.com Bill Haddon N6ZFO n6zfo@arrl.net Director: Director: W9KKN bill+nccc@w9kkn.net Bill Fehring

Volunteers:

New Member Mentor Al Rendon WT6K wt6k@arrl.net Charter Member **Rusty Epps** W6OAT w6oat@sbcglobal.net Awards Chair Gary Johnson NA60 gwj@wb9jps.com CQP Chair k6mm@arrl.net John Miller K6MM K6ZM QSL Manager George Daughters K6GT k6gt@arrl.net K6CQP,N6CQP,W6CQP QSL Mgr Ed Muns **WOYK** w0yk@arrl.net NCCC Email reflector Admin Phil Verinsky W6PK kb-w6tqg@verinsky.com Webmaster John Miller K6MM k6mm@arrl.net bill+nccc@w9kkn.net Webinars Bill Fehring W9KKN JUG Editor Ian Parker W6TCP w6tcpian@gmail.com

Thursday Night Sprint:

The Northern California Contest Club sponsors Thursday evening (NA local time) contest practice sessions of 30 minute duration.

On the Thursday (and, sometimes Friday also) prior to a major contest weekend, the practice format follows the upcoming contest.

Generally, on other 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.

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.

non-NCCC: Tim N3QE (Ladder Scores manager)

Thursday night Contesting Advisory Group: N6ZFO, Bill (Chair)

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

The Thursday night NCCC Net Ken, N6RO

With all this going on the decoder is able to properly decode data streams even though much of the stream simply cannot be heard by the human ear — it is down in the noise! These techniques are very important in true DX - receiving telemetry from interplanetary space probes, and folks like Joe Taylor have brought them to ham radio.

So what has all this to do with contesting? The techniques in place over the past decade or more have required significant amounts of time for the data stream to be transferred and decoded, making them very much un-useful for contesting. Taking five or so minutes for a complete exchange to occur is not something most of us want to do on a weekend. This began to change with the release of FT-8. This mode uses 15-second transmission bit streams that are precisely timed to string together QSO data 75 bits at a time. This doesn't seem like much, but much of the data we exchange in a contest will fit within one of these streams. By collating several of these 15 second streams, a single two-way QSO can occur in six exchanges, taking 90 seconds. The initial FT-8 protocol, and its use, was studied at length by its creators, and a second, more versatile protocol was created by adding just two more bits for a total of 77. This is the protocol in the WSJT-X V2.0 version currently in testing. As we learned in the November NCCC meeting, W0YK and AA5AU are very active in the FT-8 development, and are sponsoring a contest — the FT-8 Roundup, to be held on Dec 1-2. By the time you read this it should be history with lots of interesting results. The mode has also been included in the RTTY Roundup set for January 5-6 or 2019. In that contest you will be able to choose between RTTY, FT8 or other HF digital modes for your contest QSOs. This should make for an interesting event. But, how useful will all these modes be?

As W0YK explained in his presentation, we will not be able to use overlapping transmissions (as is the case in the DXpedition fox-hound mode) for QSOs. This means that while we might be able to overlap one or two transmissions as sort of a TU, CQ scenario, for the most part it will take the full 90 seconds for each QSO. RTTY takes far less, especially if you are able to do SO2R, SO3R, or in the case of W0YK, SO4R. Essentially RTTY is still king of digital in the contesting world. But it is very important that we try the FT8 mode and show what it can, and cannot do in the contesting environment. It is perhaps the latter that is most important. The creators of the mode are very interested in what we do, and are open to evolving the mode to better accommodate our needs. Today it might take 90 seconds for one QSO, but in the future that may be significantly reduced, or perhaps we may be able to make QSOs with multiple stations at a time. The possibilities are very exciting, and we should do all we can to encourage the development and evolution of the modes.

There is one thing, though, that we need to watch out for. Contesting is for us, not for fully-automated operation. Per FCC rules, we must be involved in the operations, selecting which station (s) we contact and when. The software may point out stations that we can call, but we must be involved in the QSO itself. As a station builder and experimenter I may find it very interesting to create a fully-automated station, but when it comes to operating I want to be in charge, not the computer. Until and unless the FCC changes its rules, we all must operate this way.

So, by all means, set up your station to operate not just in the FT8 Roundup, but be sure to operate in the RTTY Roundup as well. Try both modes in the RTTY Roundup - read the rules for how to log and submit the log information, but this is a great opportunity to be part of a great experiment in

evolving our data techniques. And also remember RTTY Roundup is an NCCC Focus contest - there is a gavel at stake and we want to add it to our collection!

NCCC Holiday Celebration

The next NCCC meeting will be held on December 15 at Michael's of Shoreline in Mountain View from 11am to 3pm. This is our annual Holiday Celebration where members and their spouses, significant others, friends... (you get the idea) are welcome. We will stray from our ham contesting roots to celebrate all we have accomplished, show thanks for each other's company, maybe brag a bit, and just plain have fun. The meeting notice can be seen elsewhere in this issue, but one of the features of the meeting I would like to point out is the auction. We already have some interesting things being promised and donated, but we need more! We are looking for all sorts of items, both ham-related and other to be offered up for auction with the proceeds benefitting the club. So what are we looking for? Well, think about it — what would you like to have? Cookies or cakes for that sweet tooth? Some sort of ham gadget — maybe a keyer, paddle, or piece of test equipment? Or perhaps you are like me and have your eye on a vintage bottle of wine? Be creative — you never know what might strike someone's fancy! In any case, if you can donate an item, please do so. The club is a 501C3 organization, which means that donations are tax deductible (be sure to check with your tax person for specifics). We already have some very interesting things promised, but we need more, so please give me a shout to let me know what you can offer. If need be I will pick it up before the meeting to make sure it is available for our excellent auctioneer, N6TV to include in his offerings. And I am sure you won't want to miss seeing (and hearing) TV-Bob special musical talents!

It is with great sadness that we learned of the passing of yet another NCCC member - Bob Hervatine, N2NS. Bob passed after an illness. Our condolences go to his family and friends.

Unfortunately this is happening all too frequently these days. We generally lose members for two reasons — the better one being that they move out of the area. We don't really like either case — friends are always special and we cherish having them near. We have also lost several members this year to moves. Retirements and the high living costs of the Bay area tend to force this issue.

As far as the club is concerned, we are actually at a net gain in membership for the year. Even better news is that many of the new members are much younger than the median age. These folks are bringing much enthusiasm and excitement to the club, reinvigorating us with new ideas. We mourn the loss of exiting members and welcome the new members to the NCCC, the best contesting club around!

73!

Jack, W6FB



NCCC Meeting - Holiday Party

Saturday, December 15, 2018 at 11:00 AM to 3:00 PM (PST)



Hello KB'ers,

Please join us for the December NCCC Holiday Party.

Date: Saturday, December 15th. Time: 11:00 am to 3:00 pm

Michael's at Shoreline

2960 Shoreline Boulevard Mountain View, CA 94043



RSVP by 12/13

Food Options:

Menu options

New York Steak, Peppercorn Sauce - \$37 Breast Of Chicken Portobello - \$26 Broiled Salmon, Lemon Beurre Blanc - \$32 Grilled Vegetable Brochette & Rice - \$27

Each Entree is served with seasonal greens, fresh vegetables, potato du jour, French rolls. coffee and sherbert

Entree Salads

Chicken Ceasar Salad - \$25

Shrimp Louis - \$29

Each Entree salad served with fruit compote, french roll, coffee and sherbert

All prices include Tax, gratuity

Our meeting Presentation will be:

- \sim Welcome & League Reminiscences, Jack W6FB
- ~ My fall vacation in the South Pacific resort of Ducie Island, Chris N6WM
- ~ Auction, Bob N6TV



Michael's at Shoreline

2960 North Shoreline Boulevard Mountain View, California, United States 94043

EVENT HOSTED BY



Northern California Contest Club Northern California Contest Club Livermore, CA, NCCC secretary.nccc@gmail.com

Sign up: Here

Or visit http://nccc.cc/meetings.html



N6WM@VP6D Oct 2018 (Crooked glasses courtesy of electrical tape field repair)

VP/CC's Corner – November 2018

Sweepstakes behind us.. CQWW CW behind us.. Now its time to focus-- ARRL RTTY Round-up

Take note of the photo! After returning from a month of travel that included 2 weeks on Ducie island as VP6D, as well as a one day visit to VP6 proper, I can say that it is truly, and unequivocally good to be home amongst my contesting peers. Why bring up VP6D in the NCCC Newsletter? As I mentioned in my last writeup, we had a team of contesters on the Island. 4 from NCCC. (WA6O, N6XG, N6WM, W1SRD). Other notable regular contesters include Les W2LK, Jacky ZL3CW(ZM1A) and Ricardo PY2PT. All familiar calls in contest logs. With that many contesters, you may have noted an unusual VP6-D multiplier QRV in CQWW SSB. Steve, W1SRD started handing out the zone during the beginning of the contest with others doing the same from a single on island station, and logs were dealt with to ensure this non-competitive entry gets adjudicated. I hope some of you got the treat of the VP6-D multiplier. What fun!

Now its time to turn toward our first focus contest of the season. The RTTY round up with kick us off with a bang in 2019. If you remember last year, we rallied together to produce an overwhelming victory in the unlimited club competition. We had drive, focus and participation, and most of all had fun doing it! With the new twist on FT8, detailed by W0YK in his presentation (I need to look at this still, I was a bit distracted but what I hear is overwhelming good feedback on his material, no surprise), we have some additional in shack preparations to do to support this new twist to a familiar contest.

Keep a close eye on the reflector, and we will start sighing up our team of fine operators very soon, if we have not done so already by the time of publish of this newsletter. I want to encourage you all not to loose sight of the upcoming WPX focus contests as well, they should be on your mind. if you can get to a DX location you should book your travel and get ready, and if you are staying in W6 all multi's and stations of all sizes should plan to be QRV.

REMEMBER -- 2019 starts out with a bunch of diddle with a side of FT8

ARRL RTTY Roundup

1800Z, Jan 5 to 2400Z, Jan 6, 2019 Logs due: Jan 13

Lets be ready to rock for this gang. Stay tuned of signups and support to get you QRV! Think about your categories, and how you can make the biggest contribution to the club effort. As you know, Gary NA6O has conjured up some good participation mementos in the past, I would expect a win in this could bring more memorable swag!

So once again, its good to be home and back in the chair with my friends in Northern California. It was an exciting Segway into what I would will be a fulfilling, fun and exciting contest season.

Until next time, 73 and hope to hear you from my contest chair!

Chris, N6WM VP/CC

The 28th NCCC CW Sprint Ladder Competition – NSL XXVIII

Bill Haddon, N6ZFO An Exciting Finish to the 28th Running of the NCCC Sprint Ladder

Dubbed by K6MM as "Contesting on the Edge," the NCCC Sprint Ladder competition entered its thirteenth year with a vigorous, rousing 28th session. This Ladder, NSL XXVIII, extended over eight consecutive weeks between August 10 and September 28, 2018, embracing the trough of the horrible Cycle 24 minimum, the lowest since 1906.

The tightest divisional finish in the Ladder's 13-year history occurred in the West Division where veteran NSL competitor "DanWA", K7SS edged out Colorado's epic contester Randy ("Ken CO"), K0EU, by just 20 points out of 10,900. That's the sum of the five highest weekly scores in the 8-week event. With band-multipliers typically about 40, accompanied by 50-60 Q's, the hair-line 20 point difference represents less than one QSO over the eight Thursday night half-hour sessions. The top NSL XXVIII score belonged to Mike, W9RE who had a cumulative five-week total of 13,372 points, followed by Jim, N3BB with 12,315. These two genius-level competitors often dominate the contest in the East Central and West Central divisions, respectively. In the Atlantic Division Larry, K7SV won with 10,613 total points, and for the first time, N6ZFO headed the NCCC Division with 7765 points, narrowly beating the weekly NS organizer Tom, N3ZZ with 7287 points. Complete results appear in the table, generated from a script written by Tim, N3QE. Tim's program queries the 3830 postings and then formats the scores for the multi-week totals, trimming low scores for entrants who compete for more than five weeks.

The New NS Ladder Certificate

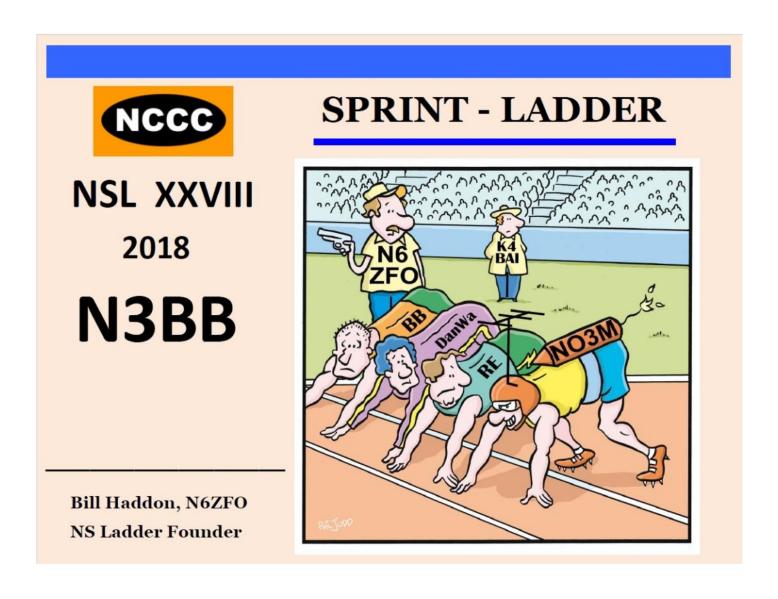
The new Ladder participation certificate is a cartoon purchased from the award-winning artist Phil Judd. It depicts an athletic sprint in which one of the competitors has attached a rocket to his back. In NSL parlance this sprinter is NO3M, "TyPA" in the contest. Perhaps TyPe A is more appropriate name for Eric, who usually out-distances all competitors in all divisions by wide margins. In 2013 I visited Eric at his NW Pa QTH, near where oil was discovered at Titusville PA in the late 19th century. When it comes to antennas, Eric is a craftsman – his 160m vertical is a work of art. Eric's mastery of SO2R in NS/NSL is legendary, as is his use of wire-only antennas, perhaps a good retrocompanion to DanWa's #2 Pencil logging technique, whose accuracy has been verified and memorialized in K6UFO's #2 DanWa pencils previously.

The cartoon shows disparaging glances from NO3M's fellow sprinters, Mike W9RE, Dan, K7SS, and Jim, N3BB. Referee John, K4BAI, who in real life is a Federal Bankruptcy Judge in Georgia, stands in the background. John is a long term friend, since high school days, of our own Rusty, W6OAT, inventor of the ham radio sprint format. K4BAI, who serves on our NSL Advisory Group (AG), actually does carefully monitor and judge adherence to the contest rules. Finally, N6ZFO, as founder of the NCCC Sprint Ladder, starts the contest. The other AG members are K4BAI, K6UFO, Ted-

W4NZ, W9RE, Howie-N4AF, N3BB and Bob-W0BH.

The certificate depicts N6ZFO's concept of the NS, making a connection between an athletic event and our fast-paced radio competition. The description on our NS Ladder Blog at nsladder.blogspot.com reads:

"Morse code, like sailing, is obsolete in world commerce. Yet both flourish as historical tributes to these once-important human endeavors. On Thursday nights about 100 ham radio hobbyists gather on four amateur bands to compete in a frenzied 30-minute Morse-code duel to contact the most stations in the most locations. In so doing they establish their standing in a geographic-based ladder competition."



A Brief NSL History

When Bill, N6ZFO, joined NCCC in 2001 there was no ladder competition in ham radio despite the popularity of the concept in bridge and chess. As a member of Marin County's Tamalpa Runners he participated in their monthly trail runs, for which the individual race finish order was added over about 8 trail runs for awards .The connection between athletic and radio prints gelled in the form of this novel contest, first within NCCC in 2005, later nation-wide. NCCC founder K6VVA and expert sprinter K6XX tied for first in NSL-I and were awarded a book "How to Cure Your Addictions" by NCCC President Tom Berson, ND2T. There's concern that the Locust read the book. Many NCCC members contributed their ideas to the new contest, but especially N6RO (a weekly "NS"), K7NV (the band-mult. metric-), K6VVA (wine award), K6UFO and others, who hashed out details on the NCCC Thursday contest net. Later, a RTTY NS materialized under N6RO's leadership, now ably run by our other Ken, K6MR. Tom, N3ZZ, has been a steadfast weekly organizer of NS when there's no ladder – most of the time.

NS/NSL in the KB Competition

Bob, W1RH and Gary NA6O, included both the CW NS/NSL and the RTTY NS as KB events. That's a good reason for competing. WX5S's talent as programmer straightened out the details of having multi-week NS scores accumulate to a single KB contest. In my 1st place KB standing last year NS events were the sixth most important contest.

The Future

Our best attended NSL occurs just after the holidays. We'll announce NSL-XXIX shortly. Innovation has been an NS/NSL hallmark. We have served, to some extent, as the inspiration for mid-week short contests, including CwOps and the Tuesday Phone-Fray. Perhaps the next challenge is an innovative FT8 event. Don't worry, other ideas of mine have fallen flat, like the idea for a cw sprint having a closer analogy to the athletic sprint: A QSO limit would prevail as the end-point instead of a time, analogous to the fixed distance of a running sprint. No one bit on that one. But by not sticking to tradition we add flexibility and adaptability. One example: K4BAI wanted an NS Multiplier for his yearly family Thanksgiving trip to Bonaire- but in ham radio that's South America. However, an official UN document designates the Caribbean region as a part of North America, so we count it that way.

Results: NSL XXVIII -- August 10 - September 28, 2018

15, 20, 40, 80 and 160m CW. Highest 5 Scores County toward Total.

Atlantic Division

| Call | Class | Wk1 | Wk2 | Wk3 | Wk4 | Wk5 | Wk6 | Wk7 | Wk8 | High 5 |
|-----------|-------|------|------|------|------|------|------|------|------|--------|
| K7SV | LP | 2622 | 2268 | 1650 | 1755 | 2240 | 1457 | 1728 | 1554 | 10613 |
| N3QE | LP | 2392 | 1656 | 1700 | 1900 | 1820 | 1598 | 1344 | 1960 | 9772 |
| K4BAI | LP | 1505 | | 1364 | 1364 | | 1134 | | 1073 | 6440 |
| W1UJ | LP | 1960 | 1254 | | | | 1350 | 850 | | 5414 |
| N4AF | LP | | | | 1575 | 2340 | | | | 3915 |
| NO3M | LP | | | 1890 | 1887 | | | | | 3777 |
| NW2K | LP | 1008 | 1394 | 1161 | | | | | | 3563 |
| W1FJ | LP | | 891 | | 630 | 1053 | | | 868 | 3442 |
| W4OC | LP | | | 1764 | 1645 | | | | | 3409 |
| N4EEV | LP | 696 | 150 | 308 | | | 750 | | | 1904 |
| K8CN | QRP | 567 | 285 | | | 352 | 270 | 168 | 360 | 1834 |
| W2GD | LP | | | | | | | | 1386 | 1386 |
| K1IMI | LP | | 49 | 667 | 414 | | | | | 1130 |
| K1SX | QRP | | | 120 | | 270 | 300 | 156 | 256 | 1102 |
| N4IQ | LP | 837 | | | | | | | | 837 |
| K8MR | LP | | | | | | | | 744 | 744 |
| VP2V/AA7V | HP | | | | | | | | 315 | 315 |
| K1GU/4 | LP | | 180 | | | | | | | 180 |

NCCC in CA/NV

| Call | Class | Wk1 | Wk2 | Wk3 | Wk4 | Wk5 | Wk6 | Wk7 | Wk8 | High 5 |
|-------|-------|------|------|------|------|------|------|------|------|--------|
| N6ZFO | LP | 1505 | | 1302 | 1395 | 1862 | 1026 | 1584 | 1419 | 7765 |
| N3ZZ | LP | 143 | 1085 | 1540 | 1518 | | 425 | 1750 | 1394 | 7287 |
| N6RO | LP | | | 1050 | 1248 | 1485 | 1312 | 1568 | 1548 | 7161 |
| W6SX | LP | 1512 | 800 | 1107 | 1080 | 1302 | 1092 | 988 | 1131 | 6144 |
| N6TV | LP | | | 1408 | 1785 | 1813 | | | | 5006 |
| K6MR | LP | | | | 1776 | | | | | 1776 |
| K6NV | LP | | | | | 720 | 638 | 286 | | 1644 |
| K6DAJ | LP | | 238 | 391 | | | 325 | | | 954 |
| N6GD | LP | | | | | | 150 | | | 150 |
| K6EU | LP | | | | | | 48 | | | 48 |

West Central

| Call | Class | Wk1 | Wk2 | Wk3 | Wk4 | Wk5 | Wk6 | Wk7 | Wk8 | High 5 |
|-------|-------|------|------|------|------|------|------|------|------|--------|
| N3BB | LP | 2726 | 2464 | 2460 | 2184 | | 2451 | 2214 | | 12315 |
| KZ5D | LP | 2964 | 1850 | | 1920 | 1862 | 1598 | 1748 | 1702 | 10344 |
| WDØT | LP | 2484 | | | 1564 | 1584 | 1584 | | | 7216 |
| WØBH | LP | 2142 | 56 | 1184 | 1053 | 132 | 1290 | 1053 | 999 | 6722 |
| KØVBU | LP | 1333 | 750 | | | 1053 | 1102 | 837 | | 5075 |
| KG5U | LP | | 800 | 750 | | 620 | 925 | 800 | 520 | 3895 |
| AB0S | LP | 925 | | | | | 1050 | 1053 | | 3028 |
| KØTG | LP | 504 | 546 | 384 | 459 | 192 | | 238 | | 2131 |
| AB0S | HP | | | | | 1161 | | | | 1161 |
| NM5M | LP | | | | 1148 | | | | | 1148 |
| KØAD | LP | | 1085 | | | | | | | 1085 |
| W5TM | LP | | | | | | | 440 | 572 | 1012 |
| WJ9B | LP | | | | | | 1000 | | | 1000 |
| KØNM | LP | | | | 396 | | | | | 396 |
| KB5RF | LP | 42 | 25 | 25 | 30 | | | | | 122 |
| K5AND | LP | | | 25 | | | | | | 25 |
| W6NF | LP | | | | | | 20 | | | 20 |

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East Central Division

| Call | Class | Wk1 | Wk2 | Wk3 | Wk4 | Wk5 | Wk6 | Wk7 | Wk8 | High 5 |
|-------|-------|------|------|------|------|------|------|------|------|--------|
| W9RE | LP | 3618 | 2436 | 2090 | 2436 | 2109 | 1870 | 1961 | 2773 | 13372 |
| KW8N | LP | 2832 | 2365 | 2173 | 1850 | 1824 | 1924 | 1376 | 1960 | 11254 |
| W8WTS | LP | 2491 | 1813 | 1656 | 1824 | | 1944 | 1540 | 1968 | 10040 |
| N8EA | LP | 3445 | | 1428 | 1364 | 1584 | 1598 | 1462 | 1880 | 9969 |
| K9BGL | LP | 2520 | 1610 | 1440 | 1785 | 1656 | 1575 | 1218 | 1739 | 9310 |
| NA8V | LP | 2958 | 1271 | 1632 | | 1584 | 1496 | 1394 | 1512 | 9182 |
| N40GW | LP | 3300 | 1786 | | 1925 | | | | | 7011 |
| W4NZ | LP | 1326 | | 1364 | | 1419 | 1036 | 1240 | 1353 | 6702 |
| K8MR | LP | | 1824 | | 1353 | 1666 | 1426 | | | 6269 |
| K4RO | LP | 2950 | | 1820 | | 1428 | | | | 6198 |
| VE3YT | LP | 30 | | 667 | 850 | 1092 | 950 | 651 | 806 | 4365 |
| N4DW | LP | 2014 | | 910 | 775 | | | | | 3699 |
| W1NN | LP | | | | 1813 | | 1836 | | | 3649 |
| K4FXN | LP | | | 660 | 782 | | 638 | 456 | 792 | 3328 |
| K40AQ | LP | 837 | 460 | 572 | 380 | | 475 | 616 | | 2960 |
| K9CT | LP | | | | | 1276 | | | | 1276 |
| N2NL | LP | 1176 | | | | | | | | 1176 |
| N4ZZ | LP | | | | | 825 | 315 | | | 1140 |
| W8EDU | LP | | | | | | | 450 | | 450 |
| WT2P | LP | | | | | 234 | | | | 234 |
| KJ4M | LP | | | | | 48 | | 4 | | 52 |

West Division

| Call | Class | Wk1 | Wk2 | Wk3 | Wk4 | Wk5 | Wk6 | Wk7 | Wk8 | High 5 |
|--------|-------|------|------|------|------|------|------|------|------|--------|
| K7SS | LP | 2120 | 1887 | 2090 | 2352 | 1802 | 1426 | 1848 | 1302 | 10297 |
| KØEU | LP | 1628 | | 1820 | 2067 | 2014 | 1998 | 2014 | 2184 | 10277 |
| K4XU | LP | 1728 | 1764 | 1950 | 2646 | | | 1900 | 1540 | 9988 |
| N5Z0 | LP | 1728 | 1326 | 1518 | 2052 | 1840 | 1680 | 1750 | 1271 | 9050 |
| WJ9B | LP | 1645 | 1428 | 1290 | 1872 | 1290 | | 1705 | 1440 | 8090 |
| W70M | LP | 1036 | 1044 | 792 | | 1120 | 962 | 1360 | | 5522 |
| AA7V | LP | 868 | 750 | 1334 | | 864 | 945 | 1080 | | 5091 |
| NN7SS | QRP | 725 | 910 | 972 | 805 | 884 | 500 | 713 | | 4296 |
| W7WHY | LP | | | 832 | | | | | | 832 |
| N6TVN | LP | 72 | 208 | 180 | | 195 | 170 | | | 825 |
| NØAC/M | LP | 81 | 100 | 100 | 100 | 169 | 100 | | | 569 |
| NØTA | LP | | | 468 | | | | | | 468 |
| KI7Y | HP | | | | | | | 390 | | 390 |
| WA6URY | LP | 156 | | | | | | 120 | | 276 |

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November NCCC Meeting

The October NCCC meeting took place on Saturday 10th November at Cattlemen's Restaurant, Livermore. The Presentation was on FT8 Contesting" Ed Muns, W0YK and Contest preparation by Bob Wolbert, K6XX.

There were 30 attendees:

Roberto AJ6CY, Bill, W9KKN, Jennifer KB4TGE, Jack W6FB, David K6DAJ, Don K6GHA, Rich N6KT, Ken N6RO, Bob N6TV, Tom NW6P, Ed W0YK, Bob W1RH, Scott W6CT, Mike WA2FHF, AI WT6K, Jon K6WV, Bryan KB0A, Dave KK6DF, Tom KW6S, Gary NA6O, Tom NS6T, Brian NT6F, Ron W8RJL, John WB6ETY, Jerry KD6WKY, Tom K6EU, Bob K6XX, Dave KA6BIM, Daniel KE6PQV, Lee KI6OY



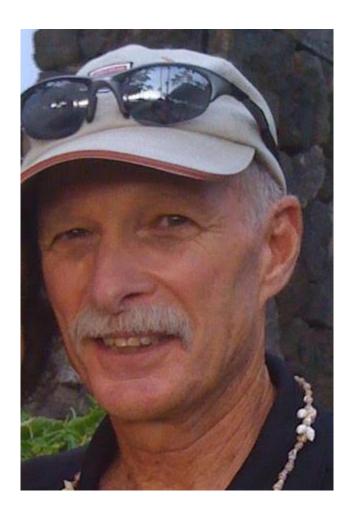
One new members was voted in, welcome to the NCCC: Ron W8RJL with Jack W6FB



Dave KA6BIM and Daniel KE6PQV

In Memory

Bob N2NS SK



NCCC member Bob Hervatine, N2NS, passed away this morning, November 30, 2018, after an illness. RIP Bob.

Point Generator Profile Bob, W1RH

Bill, N6ZFO, is the topic of this month's Point Generator Profile.

My first contact with Bill was in 2002, when K1KI and I were organizing the New England QSO Party. This dates back to my YCCC days. This is from an article I wrote for the NCCC Jug and the YCCC Scuttlebutt a few years ago:

And then there was this email from some guy with the call of N6ZFO. It was sent to the NEQP email address. Seems he was a good guy, and the VP/Contest Chair of the Northern California Contest Club, who wanted to support us. Bill asked if we had a sponsor for a W6 high-power plaque and, if not, he would sponsor it. Bill ended his email with:

"Congrats on organizing what appears to be a first-class affair. I'll make a special effort, starting tomorrow, to rally the troops. The idea of a call-area QSO Party is brilliant (I suppose someone could say we started that with CQP!)."

I must say, that email made my day! At the time, I never would have thought that Bill and I would belong not only to the same club but also work together on the NCCC Board. Bill, by the way, has been a solid member of this year's NCCC board. He's full of ideas and a joy to work with.

We all know that Bill is one of our major point generators. By my count, Bill has submitted 646 contest reports to 3830, since 2004 and only Bill knows just how many contests he participated in prior to 2004 (many of those are our own NCCC Sprints). I do know that NEQP was one of them! I'll note that Bill is currently in second place in this year's KB Award competition.

I could go on and on about Bill. He is, indeed, one of NCCC's superstars. He's a contester's contester and has held several board positions for the club.

Now, let's hear from Bill:

Name/Call Sign: Bill, N6ZFO

Past calls: KN6OPI. K6OPI

Location: Kelseyville, CA CM890a in Lake County

The N6ZFO QTH is the site of the 1950's Konocti TV service, delivering television signals from Sacramento and San Francisco stations to towns around Clear Lake using a transmitter located in a concrete bunker now serving as our wood shed. There was a nearby tower for which only guy anchors remain. Our house is atop a USGS peak called Mt. Dali Dona, directly across from the Clear Lake State Park.

How much property do you have? We're on twenty-seven acres including a 1.6 acre vineyard and about 25 acres of rocks from the Mt. Konocti Volcano. Hopefully Mt. Konocti is having a long rest. The horizon is 0-3 degrees in all directions except in a narrow swath, maximum 7 degrees elevation, centered on Brazil. It's the profile of the Konocti mountain complex. I struggle to work South America on 10 and 15m.

Describe your antenna system:

Current: In 2017 Kurt, K7NV, installed a 50-ft Rohn 45 tower and an Innov-Force 12-K7NV multi mono-bander, 3 el on 20m, 4 on 15m and 6 on 10m plus an Innov 5 el 6m beam at 55 feet. A 40m DE Zepp provides 40m and 80 meter coverage. The installation was planned with partner N0KQ, formerly nearby but now living in Brighton, CO. I've installed Beverage antennas for Eu and JA and use an inverted L for 160m. Kurt's excellent work expedited my achieving a mostly low power first place in the 2017/18 NCCC KB Competition, edging out some pretty fierce NCCCr's and attesting to Mt. Dali-Dona's excellent elevation profile and low noise level.

Future: A 40 m beam, an improved low-band receiving antenna and upgrades to the 160m antenna.

What's in your shack? .FT-1000MP Mk V and an Icom Pro-II into an Elecraft KPA 1500.

What are your previous QTH's? Corte Madera, Marin County and, and, for KN6/K6OPI, San Francisco 48th and Santiago in the Sunset during the amazing 1955-60 years of sunspot exuberance. In 1959-64 I founded the Claremont Colleges ARC (WA6LYL) while attending Harvey Mudd College in Claremont. Later at Purdue Univ. other interests trumped, NO. . superseded ham radio.

If you're working, what is your career? If not, what was your career? I am a Physical Chemist in the field of mass spectrometry, an expert in the chemical structure of bio-active natural products such as insect pheromones. Later I conducted research in food safety and managed a large bacterial food safety team at USDA. I worked 33 years at USDA's Western Regional Research Center in Albany, CA. More recently, I had a 2 ½ year career in Clinical Diagnostics at the Nichols Institute of Quest Diagnostics, San Juan Capistrano, CA. and, in 2005, a brief stint with Large Scale Biology Corp in Vacaville. Currently, I serve as President/CEO of Friends of Taylor Observatory-Norton Planetarium, a CA 501 (c) (3) Corporation serving Lake County K-12 Students and the Public in Astronomy education.. I am a certified CA Winemaker, and with XYL Barbara, operate the very small Talleyrand Winery.

Married? Kids? Grandkids? XYL is Barbara, for 25 years; three children two hers one mine, no grandkids. Son Adam Mount is in the field of Nuclear Disarmament and Deterrence with expertise in North Korea nuclear issues, currently serving as a director of the Federation of American Scientists in Wash DC (Poly-sci/econ major) and recipient of a MacArthur Foundation grant. You've' likely seen Adam on TV where he's been interviewed about 30 times in the past three years on the popular national/international news networks. Daughter Jennifer is a CPA and partner for a small firm in Seattle, specializing in non-profits auditing; Daughter Kim is a manager in Locomotives for the CSX railway in Jacksonville FL. She's married to a former football QB, briefly, for the Vikings, Seahawks and Winnipeg Blue Bombers in the CFL. We're waiting, seemingly endlessly, on grandkids.

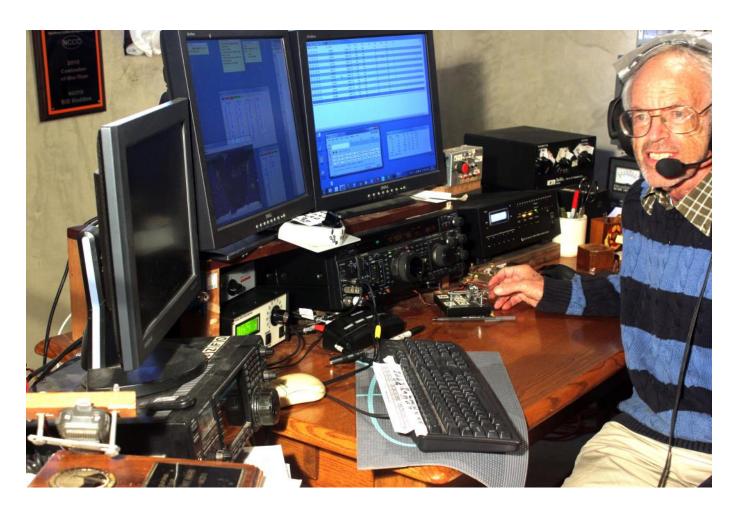
How many DXCC entities have you worked? 200+ on 30m CW but otherwise don't count.

What's your favorite contest? Of course the NCCC Sprint Ladder with CQP a close second. . To keep my ears well-trained I dabble in Non-Directional Beacon (NDB) SWLing participating in the monthly coordinated listening events (CLE's) run by Brian Keyte, G3SIA. I first learned of the CLE's from NCCC member Tim, K7XC.

Any tips for contesters? Get on the air – make points for the NCCC. Explore and take advantage of FT8 and exploit its potential for contesting.

What would you like to see changed in NCCC? More vigorous programs to promote student licensing possibly with contributions to ARRL Youth scholarship programs.

Any other hobbies besides ham radio? As a side project of Presidency of Taylor Observatory I proposed two years ago that Lake County seek International Dark Sky Community Certification. Just before Thanksgiving Lake County Supervisor Jim Steele presented a proclamation to the Lake County Board of Supervisors to promote our Dark Sky goals with the twin objectives of preserving dark skies for future generations of Lake County students and attracting "astro-tourists" to Lake County from nearby light-heavy communities in Northern CA. Kids growing up in these communities might never see the Milky Way from their home locations unless commercial power sources fail.. The astro-tourism goal has taken on increased importance following our devastating wildfires of the past 5 years which have burned sixty-three percent of Lake County's land area.



N6ZFO enthusiastically pursuing KB points in some contest. Newly acquired KPA-1500 is visible next to the 25-year old FT-1000MP Mk V.



Recalling NCCC'r N6NZ's famous statement . .you can either buy a tower or a mountain, we elected to buy the Mountain. Mt. Dali-Dona, Pomo Indian for Inverted Basket, is an official USGS peak at 1965 feet, approximately 650 feet above Clear Lake in Lake County.





Shows the XYL's Beautification project for 45-foot the new 45-ft tower. The shed for garden tools extended the small concrete block building that housed the Konocti Television relay transmitter in the 50's. Garden Shed Under Construction



The cut out section of the shed allows full access to the tower.



Bill's novice station featured a 5 watt 40m 6L6 crystal-controlled rig that had been described in QST as a starter Novice Rig with a Hallifcrafters SX-71 receiver. Great for working So Cal, NV and OR, but not much else.

Dick Parks, W6UO, a neighbor of my dad (KN6ORA) kindly offered the 20-foot wood tower used at a KGO relay station in Oakland. Dick was CE for KGO-TV and a great mentor. Somehow we transferred this monstrosity to the roof of my mom's rental house at 48th and Santiago in San Francisco on ski racks on a '55 Oldsmobile 98. The SF QTH was just 1 block from the Pacific Ocean, netting lots of 15 meter DX. I was the only novice to work the 1956 SM8KV DXpedition to Spitzbergen, meriting a first mention in QST.

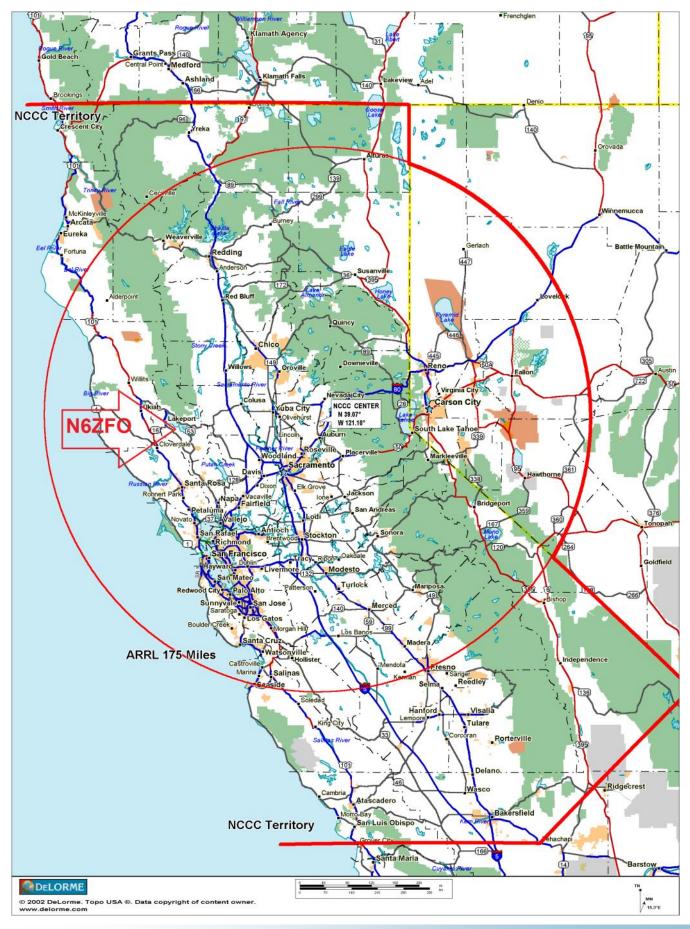




The upgrade from the 5w 6L6 to a Viking Adventurer let to overseas contacts on 15m. I still work Akio, JA3JM, my first Asian QSO, regularly in contests



Here Bill Is awarding a Telescope to a deserving Lake County student in Friends of Taylor Observatory's "Future Astronomers" program.



NCCC Annual KB Competition Rules

Revised February 25, 2018



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 38 contests are counted. See the table on the next page

Scoring: Score = number of contests in which you participated * sum of (points for each contest * each contest's multiplier). 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 3830scores.com are counted.

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.

Contact: Gary, NA6O. gwj@wb9jps.com

NCCC Annual KB Competition Table (Updated 2/25/18)

| Contest | Month | Multiplier | |
|-----------------------------|-----------|------------|--|
| ARRL DX Contest SSB | March | 5 | |
| CQ WPX SSB | March | 1 | |
| NA Sprint Spring SSB | April | 100 | |
| JIDX CW | April | 10 | |
| Florida QSO Party | April | 20 | |
| 7th Area QSO Party | May | 20 | |
| New England QSO Party | May | 30 | |
| CQ WPX CW | May | 1 | |
| ARRL June VHF | June | 200 | |
| All Asian CW | June | 10 | |
| RAC Canada Day | July | 10 | |
| IARU HF World Championships | July | 5 | |
| NAQP Summer RTTY | July | 50 | |
| NAQP Summer CW | August | 50 | |
| NAQP Summer SSB | August | 50 | |
| Kansas QSO Party | August | 20 | |
| NA Sprint Fall CW | September | 100 | |
| CQWW RTTY | September | 2 | |
| NA Sprint Fall SSB | September | 100 | |
| CQP | October | 20 | |
| Makrothen RTTY Contest | October | 10 | |
| JARTS RTTY Contest | October | 5 | |
| CQWW SSB | October | 1 | |
| ARRL Sweepstakes CW | November | 15 | |
| JIDX SSB | November | 20 | |
| ARRL Sweepstakes SSB | November | 15 | |
| CQWW CW | November | 1 | |
| ARRL 160 Meter Contest | December | 50 | |
| RAC Winter | December | 10 | |
| ARRL RTTY Roundup | January | 50 | |
| NAQP Winter CW | January | 50 | |
| NAQP Winter SSB | January | 50 | |
| NA Sprint Winter CW | February | 100 | |
| CQ WPX RTTY | February | 1 | |
| ARRL DX Contest CW | February | 5 | |
| NAQP Winter RTTY | February | 50 | |
| NCCC Sprint CW | Weekly | 50 | |
| NCCC Sprint RTTY | Weekly | 100 | |

| Platinum | Gold | Silver |
|----------|--------------|--------|
| AD6E | AJ6V | Al6JZ |
| AE6Y | K6AW | K6AAM |
| AF6SA | K6DAJ | K6CSL |
| K2RD | K6DGW | K6ELE |
| K3EST | K6IJ | K6JS |
| K5RC | K6NV | K6KLY |
| K6GHA | K6RIM | K6KR |
| K6LRN | K6TLR | K6RB |
| K6MM | K6UFO | K6ST |
| K6MR | K6XN | K6TQ |
| K6SRZ | K6XV | K6UM |
| K6XX | KH2TJ | K7GK |
| K7XC | KH6LC | K7MKL |
| K9YC | KM6I | K7NV |
| KA6BIM | N0KQ | KA6W |
| N6EE | N2NS | KD6WKY |
| N6IE | N3RC | KE8FT |
| N6JV | N3ZZ | KI6OY |
| N6RO | N6KT | KM9R |
| N6TV | N6PN | KO6LU |
| N6WM | N6XI | KX7M |
| N6ZFO | NC6R | KZ2V |
| N7MH | NJ6G | N1DID |
| NA60 | + | N5KO |
| W0YK | NQ6N NW6P | N6AJS |
| W1RH | OH1VR | N6DE |
| W1SRD | W6DR | N6DW |
| W2SC | W6EU | N6GEO |
| W6NV | W6FA | N6JS |
| | | N6NU |
| W6OAT | W6JTI | |
| W6SX | W6NF | N6RK |
| WB6JJJ | W6RC | N6VV |
| WC6H | W6SR | N9YS |
| WK6I | W9KKN | ND2T |
| WX5S | WA6O | NF1R |
| | WU6X | NK7U |
| | | NR6Q |
| | | VY1JA |
| | | W6LD |
| | | W6NL |
| | | W6RGG |
| | | W6SC |
| | | W6SZN |
| | | W6TCP |
| | | WE6Z |

KB Award Brackets - New for 2018

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.

On the left, is an alphabetical list of the current assignments to the top three brackets.

If your call is not listed, you are in Bronze. If you believe your current bracket is incorrect, please contact NA6O.

TUBE OF THE MONTH

Visit the museum at N6JV.com Norm N6JV

Visit the Museum: www.n6jv.com

The 750T

As a young man when I was just getting serious about chasing DX, I was lucky to be around hams that became famous for their pioneering work. I once met an older ham who heard of my interest in old tubes. He said that if I came over to Moraga he would give me an old 750T for my collection. He was Reg Tibbetts, W6ITH, and he told me some tales of ham radio and tubes. Eimac has began business in 1934, the year he graduated from UC Berkley. He was a great builder of equipment and by 1936 had six separate transmitters build into nine six-foot racks. Reg was a "phone" man and wanted to run the legal limit on AM phone, class A. Tubes that would take that power and frequency were not available. His friends at Eimac had been making a very nice tube, the 300T, but it was just too small. Reg convinced them to make an upsized tube that they called the 500T. Reg was in business and a monster amp with a pair of 500Ts was on the air. Eimac added the 500T to their tube line and before WWII, changed its name to the 750T and later to the 750TL. It was 17 inches tall and was the first of the big glass tubes produced at Eimac. By WWII having a big rig had its downside. The Navy came to his shack and hauled away the racks. It seems they were short on panel meters.

Reg's first big project was to build and sell the 5-meter portable transceivers that were used during the building of the Oakland-Bay Bridge. After the War, he worked for UPI and installed shortwave stations all over the world. He had an interest in a plantation on the French side of Saint Martin and wanted to run his ham gear from there, but there had never been ham radio on the island and there was no prefix allocation. On the plane to Saint Martin, Reg composed a letter authorizing him to operate under the call FS7RT. He somehow convinced the Governor to sign the letter and he began operating. The French telecom people didn't know what to do, but eventually the FS prefix became official.

TUBE OF THE MONTH

Visit the museum at N6JV.com
Norm N6JV



NCCC Life Membership!

The NCCC Life member program was introduced for a flat fee of \$250. If you are interested in becoming an NCCC Life member, please contact Ian W6TCP at w6tcpian@gmail.com

80/20 Rule:

Members who have reached 80 years young and been a NCCC Member for 20 years are eligible for Honorary life membership. Contact Ian W6TCP at w6tcpian@gmail.com

Forthcoming NCCC Meetings

December 15th, Saturday

Holiday Party, Mountain View, See page 5

January 8th, Tuesday

South Bay, Venue / Presentation TBA

February 13th Wednesday

Joint NCCC / REDXA meeting

March 12th, Tuesday

South Bay, Venue / Presentation TBA

BoD meeting minutes

The monthly minutes from the NCCC BoD meetings are available in the members only section of the NCCC website. See http://nccc.cc/members/minutes.html

JUG Articles Wanted!

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

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

Deadline is 7 days before month end. Preferred format is MS Word, Arial 12 point and pictures should be full resolution. Send your material to Ian, W6TCP at w6tcpian@gmail.com Don't worry about the formatting, we can take care of that if necessary!



Contest Calendar – December page 1

UFT Contest 0500Z-0800Z and

1500Z-1800Z, Dec 1 and

0700Z-1000Z, Dec 2

Wake-Up!QRP Sprint 0600Z-0629Z, Dec 1 and

0630Z-0659Z, Dec 1 and

0700Z-0729Z, Dec 1 and

0730Z-0800Z, Dec 1

YARC QSO Party 1400Z, Dec 1 to 0259Z, Dec 2

TOPS Activity Contest 1600Z, Dec 1 to 1559Z, Dec 2

FT8 Roundup 1800Z, Dec 1 to 2359Z, Dec 2

EPC Ukraine DX Contest 2000Z, Dec 1 to 1959Z, Dec 2

ARS Spartan Sprint 0200Z-0400Z, Dec 4

QRP Fox Hunt 0200Z-0330Z, Dec 5

Phone Fray 0230Z-0300Z, Dec 5

CWops Mini-CWT Test 1300Z-1400Z, Dec 5 and

1900Z-2000Z, Dec 5 and

0300Z-0400Z, Dec 6

QRP ARCI Topband Sprint 0000Z-0300Z, Dec 6

NRAU 10m Activity Contest 1800Z-1900Z, Dec 6 (CW) and

1900Z-2000Z, Dec 6 (SSB) and

2000Z-2100Z, Dec 6 (FM) and

2100Z-2200Z, Dec 6 (Dig)

SKCC Sprint Europe 2000Z-2200Z, Dec 6

NCCC RTTY Sprint 0145Z-0215Z, Dec 7

QRP Fox Hunt 0200Z-0330Z, Dec 7

NCCC Sprint 0230Z-0300Z, Dec 7

PODXS 070 Club Triple Play Low Band Sprint 0000Z, Dec 8 to 2359Z, Dec 10



Contest Calendar – December page 2

ARRL 10-Meter Contest 0000Z, Dec 8 to 2400Z, Dec 9

TRC Digi Contest 0600Z, Dec 8 to 1800Z, Dec 9

SKCC Weekend Sprintathon 1200Z, Dec 8 to 2400Z, Dec 9

International Naval Contest 1600Z, Dec 8 to 1559Z, Dec 9

QRP ARCI Holiday Spirits Homebrew Sprint 2000Z-2300Z, Dec 9

CQC Great Colorado Snowshoe Run 2100Z-2259Z, Dec 9

4 States QRP Group Second Sunday Sprint 0100Z-0300Z, Dec 10

NAQCC CW Sprint 0130Z-0330Z, Dec 12

QRP Fox Hunt 0200Z-0330Z, Dec 12

Phone Fray 0230Z-0300Z, Dec 12

CWops Mini-CWT Test 1300Z-1400Z, Dec 12 and

1900Z-2000Z, Dec 12 and

0300Z-0400Z, Dec 13

NCCC RTTY Sprint 0145Z-0215Z, Dec 14

QRP Fox Hunt 0200Z-0330Z, Dec 14

NCCC Sprint 0230Z-0300Z, Dec 14

UN Digi Contest 1400Z-1559Z, Dec 14 and

1600Z-1759Z, Dec 14

Russian 160-Meter Contest 2000Z-2400Z, Dec 14

OK DX RTTY Contest 0000Z-2400Z, Dec 15

Feld Hell Sprint 0000Z-2359Z, Dec 15

Padang DX Contest 1200Z, Dec 15 to 1159Z, Dec 16

Croatian CW Contest 1400Z, Dec 15 to 1400Z, Dec 16

ARRL Rookie Roundup, CW 1800Z-2359Z, Dec 16

Run for the Bacon QRP Contest 0200Z-0400Z, Dec 17

NAQCC CW Sprint 0130Z-0330Z, Dec 19

QRP Fox Hunt 0200Z-0330Z, Dec 19



Contest Calendar—December page 3

Phone Fray 0230Z-0300Z, Dec 19

CWops Mini-CWT Test 1300Z-1400Z, Dec 19 and

1900Z-2000Z, Dec 19 and

0300Z-0400Z, Dec 20

NCCC RTTY Sprint 0145Z-0215Z, Dec 21

QRP Fox Hunt 0200Z-0330Z, Dec 21

NCCC Sprint 0230Z-0300Z, Dec 21

AGB-Party Contest 1600Z-1700Z, Dec 21

RAEM Contest 0000Z-1159Z, Dec 23

SKCC Sprint 0000Z-0200Z, Dec 26

Phone Fray 0230Z-0300Z, Dec 26

DARC Christmas Contest 0830Z-1059Z, Dec 26

CWops Mini-CWT Test 1300Z-1400Z, Dec 26 and

1900Z-2000Z, Dec 26 and

0300Z-0400Z, Dec 27

NCCC RTTY Sprint 0145Z-0215Z, Dec 28

NCCC Sprint 0230Z-0300Z, Dec 28

RAC Winter Contest 0000Z-2359Z, Dec 29

Stew Perry Topband Challenge 1500Z, Dec 29 to 1500Z, Dec 30

Original QRP Contest 1500Z, Dec 29 to 1500Z, Dec 30

Bogor Old and New Contest 0900Z-2359Z, Dec 31



NCCC Membership Information

If you wish to join NCCC, you must fill out an <u>application for membership</u>, which will be read and voted upon at the next 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).

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Northern California Contest Club Reflector—Guidelines

This reflector is devoted to the discussion of contesting.

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

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

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



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KENWOOD



TS-590SG HF/50MHz Transceiver



TM-D710G 2M/440 Dualband



TM-V71A 2M/440 DualBand



TM-281A 2 Mtr Mobile



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FT-991A HF/VHF/UHF Transceiver



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FTM-400XD 2M/440 Mobile



FT-60R 2M/440 5W HT



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