



Publication of the  
Northern California  
Contest Club



Issue 590

September 2021



JUG Editor: Bill Haddon, 415 209-3084

## *NCCC - 50 years of Contesting Excellence*

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### **NCCC September ZOOM Meeting** **Sunday, September 19, 2021** **1230(Chat) 1300-1500**

1. VP/CC Update with Andy, AE6Y (at 1300)
2. Oceania SSB/CW Contests for October with Bob, K3EST
3. Engineering Tech Tip: Waterproofing Connectors with Gary, NA6O

### **"Islands on the Air (IOTA) "**

**Cezar Trifu, VE3LYC**

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

### President's Report - WD6T

## Megacycles

David A. Jaffe

Megacycles. Remember them? They were sort of like Megahertz and you could convert via  $f(x) = x$ . Ham radio is full of cycles, daily, yearly and that 11-year thing (not to be confused with cicadas). September marks the traditional beginning of the contest season. Here in the Northern Hemisphere the passing of the autumnal equinox (Sept. 22) gives us more darkness than light, fewer thunderstorms, and allows our lower bands to reassert their fascination.

Also, to paraphrase the old Mutual of Omaha "Wild Kingdom" commercials: as surely as the departure of the Cliff Swallows from San Juan Capistrano, as they head back to their wintering grounds in Argentina, so is September the time when NCCC Presidents scratch their heads and try to figure out what they can say this year that is different from what they said a year ago.

Well, I just read what I wrote last September. Most of it still applies. That includes, unfortunately, the fact that Covid is still a threat and record-setting fires continue to be a menace. For these reasons, we were again forced to cancel our September picnic and we will be continuing to meet via Zoom. That does mean that we can have speakers from far and wide.

Last year we learned about the "COVID effect," in which participation was inflated by house-bound hams. This phenomenon may not be as pronounced as it was a year ago, but it remains a factor. While nobody wants to be prohibited from traveling, we as a community are lucky to be able to reach out and explore the world from the safety of our homes, through the miracle of radio. In that spirit, our September meeting will feature a rescheduling of Cezar Trifu's presentation on the IOTA program. Originally



## Officers:

President	David Jaffe	WD6T
Vice President /Contest Chair	Andy Faber	AE6Y
Treasurer	Stefan Nikov	AF6SA
Secretary	Gary Johnson	NA6O
Past President	Jack Brindle	W6FB
Director	Roberto Sadkowski	K6KM
Director:	Bob Cox	K3EST
Director:	Rich Smith	N6KT

## Volunteers:

Charter Member	Rusty Epps	W6OAT
Awards Chair	Gary Johnson	NA6O
CQP Chair	Dean Wood	N6DE
K6ZM QSL Manager	George Daughters	K6GT
K6CQP,N6CQP,W6CQP QSL Mgr	Ed Muns	W0YK
NCCC Email reflector Admin	Phil Verinsky	W6PK
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](http://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 <a href="http://www.ncccsprint.com">www.ncccsprint.com</a>	John, K6MM
Ladder Scores Manager	Tim N3QE
Thursday night Contesting Advisory Group:	N6ZFO, Bill (Chair)
	Mark K6UFO, (with W4NZ, N4AF, W9RE, K4BAI, N3BB, VE3YT and W0BH).
The Thursday night NCCC Net	Ken, N6RO



scheduled for the July meeting, the talk was preempted by a ferocious VE3 thunder storm that knocked out power at just the wrong time.

Many of us are only vaguely aware of IOTA; we see its designations on some of our QSL cards, but have not tracked it closely. We have been brain-washed and hypnotized by DXCC, a system that distorts the world such that a country of a billion people is equivalent to a remote Greek monastery. Still, in its defense, DXCC sparked our interest in geography and history. We rushed to the globe and encyclopedia to learn about the places we just worked.

IOTA presents an alternative but just as unique overlay on the world and allows us to discover that we really haven't "worked them all" after all. In yet another cycle, it reignites our curiosity about exotic places. Few of us still have a World Book or Encyclopedia Britannica in our house, but our computer, tablet, phone, watch, or cyber-implant are ready and willing to fulfill that role. I hope you will make a point of attending the September meeting and learning about this fascinating perspective on ham radio, geography and culture.

September also features the massive CQ WW RTTY contest. Following close on its heels is the California QSO Party, arguably the highest-rate contest of the year for us in the Golden State, and one where we can be the DX without having to get seasick.

Other important contesting events in September include the All Asia phone contest, the North American CW and RTTY Sprints, the ARRL September VHF contest and (in late August, actually) the WW Digi Contest. Add to that many state QSO parties, CWOpen, the weekly NS and CWTs and there's something for everyone. So fire up the rig, join in the fun, post your scores and thoughts to the reflector, and get ready for the big 2021 California QSO Party shindig!

73, Dave, WD6T

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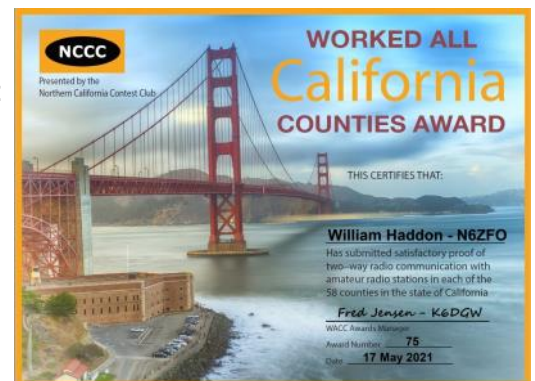
## Opportunity — Earn the WACC Award in the CQP

*Bill, N6ZFO and Fred, K6DGW*

Participants in the October CQP, now on the near horizon, have the opportunity to chase, and perhaps earn, the coveted Worked All CA Counties award. Recently, upgrades and modernization of the WACC award were described in the February 2020 JUG, page 13. NA6O and his XYL updated the certificate design.

While traditional QSL's, from as far back as 1850, can be submitted for WACC credit, a more practical way is to work your needed CA counties in the CQP, where all CA counties are active. The protocol is as follows:

1. Pre-CQP . Email the WACC Chair, K6DGW to receive an accounting of your missing counties from previous CQP's.
2. Consult the list of active stations in the County Tracer CQP page: <https://cqp.org/tracker.html>
3. Make a list of needed stations
4. Enter CQP to work the needed counties, perhaps using Assisted mode.





## September 2021 VP/CC Report

### Andy Faber, AE6Y/P49Y

This column is mostly some contest reflections from the last few weeks, as the contest season starts to rev up – of course it really starts with CQP in the first weekend in October.

#### NAQP CW

As I explained last month, I always enjoy NAQPs, and this one was no exception. There was strong Club participation, with N6TV as our leading scorer. My score was 10k points above last year's running of the August contest, with 5 more mults and 31 more Qs. 10 was open at the start, and 15 stayed open for several hours. Neither, of course, had the countrywide opening that 20 and 40 had. 80 might have had it also, but the noise level limited me to only 22 mults there, compared to 35 last year. 10 had spotlight propagation to the East Coast, but not the rest of the country in between.

I'm always amazed at some of the scores in this contest. I usually finish in the top 15% or so, but there are some fantastic scores ahead of me. Some of these guys are superb operators, but then I try to figure out what I could do to be more effective, and don't come up with any big ideas. A great many CQs just remain unanswered, implying that for some stations they are simply louder and/or hear better. I used to get frustrated listening to N5KO or N6KT operating from Dave and Barb's mountaintop location at W6NL/K6BL, when they would be running on 15 and working stations I couldn't even hear, so at least that was an excuse (neglecting that Trey or Rich could operate from my station and significantly improve on my scores, I'm sure...).

It's also surprising after a full effort in a contest to see large scores from stations that I never once heard in the contest. In this one that was true for ZF9DX and HH2AA, who between them racked up over 1300 Qs and whom, in spite of many hours of tuning for mults on the second radio, I never heard one time. Same is true for big station WB9Z who made some 800 contacts. The jury is out on whether trying to move mults in this contest is very helpful. I wrote a JUG article a few years ago after an NAQP SSB in which I had moved 20+ stations, and concluded that it had increased my score by about 5%. But moves are easier and quicker on phone than on CW. And things can go wrong: as the famous Ohio State Coach Woody Hayes, a proponent of the "three yards and a cloud of dust" theory of offense, used to say: "there are three things that can happen when you throw the ball and two of them are bad."

Similarly, when you ask for a move, there are roughly four possible outcomes: (a) often, particularly on CW, the station doesn't respond, or can't go to the other band; (b) you successfully make the move and get back to your old frequency – that's the one successful outcome; (c) the move fails; or (d) worst of all, the move fails and you lose your run frequency. All four of those occurred in this contest, with a successful move being of Club member K2RD from 80 to 160, which was certainly appreciated.

#### NAQP SSB

What a difference two weeks makes! The NAQP SSB version two weeks later had much worse conditions. It tends to be a harder contest for those of us with relatively normal stations, particularly since it is also restricted to 100 watts. Furthermore, noisy bands are much more disruptive on phone than on CW due to the wider bandwidth required. My QSO count was about 2/3 of that in the CW portion, and mults were down by an even larger percentage. Part of this was due to no ten meters at all (except that Rich, N6KT, suggested we have a QSO there, and it proved to be the only contact on that band for both of us).

Fifteen was nearly as bad. I worked Rich, KH7R, and W9KKN, and the only other station I heard on the second radio during the many times I listened while CQ'ing on 20, was a weak KP4AA in Puerto Rico, whom I worked on the first call. Go figure.

Forty was in good shape, but very noisy, and I really had to struggle for mults. Couldn't get any sustained runs going, and was very frustrated listening to Ira, K2RD's big pileup for his NV mult while no one was answering my CQs. I couldn't break the pile-up, though later I did work him on a QSY after he called on 80 (and thanks for the later QSY to 160, also).

So overall, it wasn't a very pleasurable contest. If I hadn't been on a club team, I would have called it quits much earlier when 20 had mostly closed and 40 was proving intractable. But I stuck it out, and saw that two of my teammates, KA6BIM and K6GHA, had nearly identical scores (in fact, I had one more QSO than Don, while he claimed one more mult – talk about close!). N6ZFO's score was just a little behind, and, as expected, WC6H was way out in front of us other four.

As I mentioned last month, one of the enjoyable facets of NAQP SSB is that since the name is part of the exchange, it's common to greet people by name, e.g., saying "QSL. Thanks Jim", rather than just "TU" as on code. In that regard I was called by Ken, N9HQ on 20 about 3 hours into the contest. When he came back to me after hearing my exchange, he commented that Andy seemed to be a common name in this contest. Now, I didn't think so, not having worked another one (and not working another one in the whole contest, though on CW N2NT in NJ and K2LE/1 in VT are stalwart Andy's). I commented in turn that I had noticed quite a few Kens in the contest. I went back to CQing, and was immediately called in succession by Ken, VE3KP, and Ken, AC5EZ, giving me three Kens in a row.

#### Hawaii – Kansas – Ohio QSO Parties

These three QSO parties all took place the same weekend. It was a lot of fun to browse in them. I don't have contest modules for them in my logging program, CQPWIN, but just used "general" logging, so anything could be logged in the exchange window. That meant that I have all three in the same log; it would be easy enough, if I were serious, to manually separate the Cabrillo output log into three parts. I did all my CW sending by hand, just for the practice. The mults are fun: 88 counties in Ohio, 105 in Kansas (which they claim were all on the air) and 14 in Hawaii (there are only five actual counties in Hawaii, but they have subdivided the populous islands).

While doing other chores in my office/shack, I dabbled enough to work 89 CW Qs and 36 phone Qs, in all three combined. Actually, there may be more than that, since some of the Kansas stations were on county lines (one on 4 at one point – presumably the benefit of nice agricultural land with square county corners), and their rules say to log them as separate QSOs for each county. In addition, though I couldn't find a reference to this in the rules, several stations were apparently rovers, and gave callsigns for two or three operators, the implication being that they all could be logged as separate QSOs. That was peculiar, and I'm not sure I understood it correctly.

I was struck by a few facets of participating this way. One is the generally slow speeds of the CW stations. Many were running at about 24-28 wpm, which is not something we normally hear in CQP. Another was the lack of identification by some of the running stations, who would sometimes go for 4-5 QSOs without ID. A few times I tuned away out of frustration. One problem may be that rovers are supposed to ID with their county abbreviation, which some of them religiously did, and that would take some time. Our speaker at the last meeting, Jim, K8MR, hit numerous counties in Ohio. He was weak, but sending at a good rate, ID'ing often, and easy to work from multiple counties.

#### CW Open

The CW Open occurred in 3 sessions on the Labor Day weekend, each of which is a separate contest running for four hours. The first started at 0000Z on Saturday (5 p.m. local time on Friday). I got home a little late from work, but otherwise put in a full-time effort. I recall the first CW Open in 2011, when four Club members, W0YK, W6OAT, K6RB and myself all finished in the top 10 for aggregate scores. AA3B was the overall winner, and he continues to win these, as well as the weekly CWTs. Unlike some speed demons, Bud seems to go at about 34 wpm most of the time – perhaps there is a lesson to be learned from him.

Packet, skimmer, etc., are all legal, so the top operators use these assists, as well as 2BSIQ when they can. But it can still be fun to operate the old-fashioned way, without assistance. To show you how the contest has evolved, in 2011 I was third in the first session, while this year according to 3830 I am in 33<sup>rd</sup> place. Interesting-

ly, K6RB this year is in 31<sup>st</sup> place with virtually identical totals (AE6Y: 162/167/47 on 20/40/80, with 264 mults; Rob: 161/166/48 with 267 mults) -- it's not that we've gotten worse, but the serious competition has gotten much more serious.

Incredibly, AA3B finished with 664 claimed QSOs, and K3WW is right behind at 634. These two vie for dominance in the weekly CWT competitions as well. They both obviously work the internet for contacts, but I'm always stunned at their QSO levels, particularly since I never think that either is terribly strong out here (though K3WW had a terrific 40m signal in the first CW Open session). Interestingly, the only West Coasters that gives Bud and Chas a run for their money are Marko, N5ZO, who seems to have mastered the techniques from SoCal, and Axwl, KI6RRN @WA6TQT (a super op at a super station).

I sat out (partially slept in, actually) the 1200-1559Z contest, but I see that the dynamic duo finished very close to each other with about 560 qsos; surprisingly, N2IC in NM skunked them both by 100 QSOs (including 126 on 15m!) and has the claimed win.

I gave in to the long-weekend contest allure and also operated in the third session. It's really interesting to experience the vagaries of the ionosphere over the course of a day. Rates were great for the first two hours on 20 (114 and 104), but then the last two hours produced only an additional 100 Qs combined, and it was a lot of work even to get those. Of course, the problem was that 20 got worked out and everyone left to go to 40 after about 2 hours, but 40 at 1500 local time isn't very good for us. It was a real struggle getting Qs on 40 in broad daylight; thus, the East Coasters have a huge advantage in this session. As an example, I worked W2GD with 45 minutes to go in the contest. His QSO number was 10 ahead of me at 296 to 286. But he finished the contest with 382 Qs, versus my 319. So in the last 45 minutes, he made 86 contacts while I struggled to get only 33 more. He had 58 Qs on 80, presumably in that last hour; I didn't even bother to check 80 as I assumed it would be pretty much useless here in the afternoon. But as compensation there was quite a bit of EU DX on 20. Also, in both contests a barely audible ZL1BBW (Gavin) called me off the back of the beam, and we were able to make the contacts, which was very satisfying.

Anyway, congratulations to CW Ops, of which many of our NCCC members are also members (and Rob is a founder, CWOps #3), on being a forceful proponent of CW rag-chewing and contesting, and on sponsoring the CWTs and the CW Open (and, of course, introducing many beginners to CW through the CW Academies and other educational efforts).

Here's a pome about the weekly CWTs:

CWTs are a weekly event.  
Code cobwebs they aim to prevent.  
So CQ for a run,  
And join in the fun.  
Morse code is large family tent.

### Upcoming Contests

September the start of the fall season (or purists might say CQP in October is the start). Check WA7BNM's contest calendar for a list of contests occurring every weekend of the year. Here are a few of interest:

NA Sprint RTTY Sept. 19 (Saturday Sept 18 in NA)

CQ WW DX RTTY Sept. 25 [*KB Contest, Ed.*]

CQP Oct 2-3 [*KB Contest, Ed.*]

Makrothen RTTY Oct. 9-10 [*KB Contest, Ed.*]

# RFI Test Report – Samlex SEC-1235M Power Supply

Gary, NA6O

**Manufacturer: Samlex**

**Model: SEC-1235M**

**Serial: 03435-8C01-00414**

Description: 120 AC-powered switching power supply, fixed output voltage, 35 A.

Purchased from: Ham Radio Outlet

Test equipment: Isolation transformer, 50 uH LISN, HP 8560A with 20 dB preamp, Tek TDS320A. Note: Spectrum spikes around 100 MHz are FM band leakage.

Tested by: Gary Johnson, NA6O Date: Sept 8, 2021

## Summary

Recommend for amateur radio stations: **YES**

FCC Part 15 conducted emissions: **Compliant**

FCC Part 15 labeling: **Compliant**

## Observations:

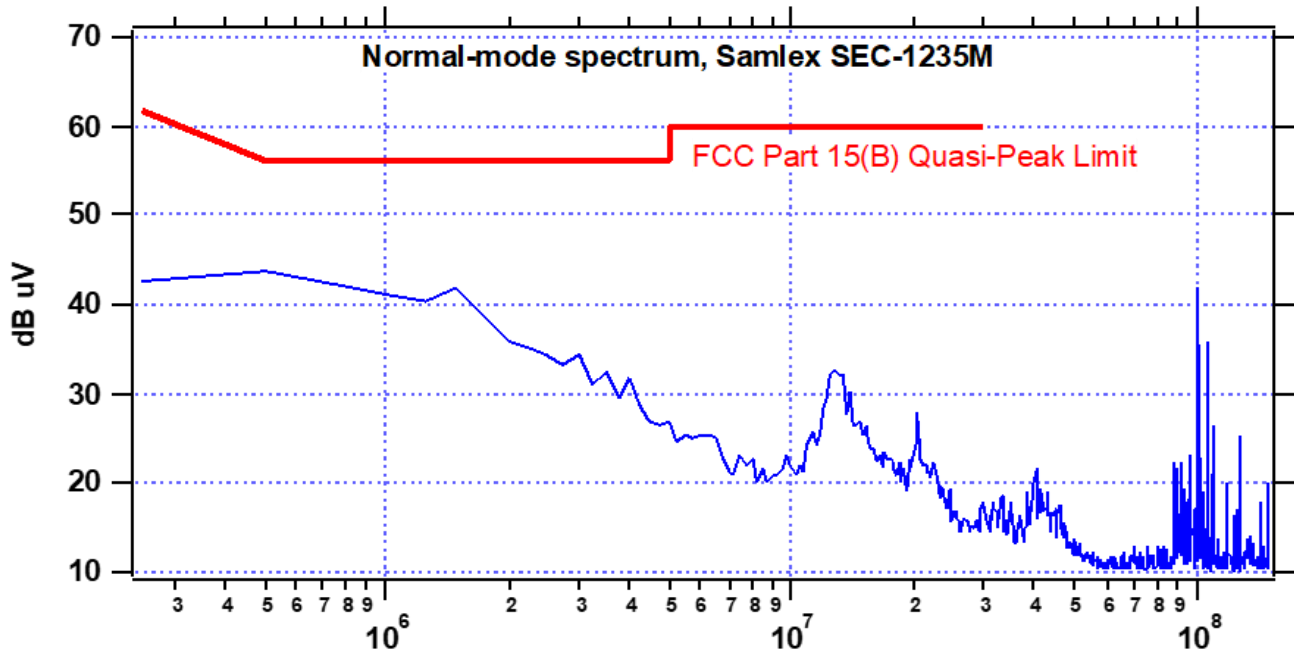
All testing performed with a 4 ohm (~3 A) load to represent nominal receive conditions at a typical ham station, where noise is of the greatest concern. DC output voltage was 14.5 VDC (internally adjustable via a small pot). Switching frequency is ~35 kHz. AC line-side noise is basically a low-level, clean 35 kHz sine wave and all harmonic energy is confined to the low HF frequencies. Output has a similar 35 KHz waveform, 30 mV p-p, with harmonics that are at the microvolt level by 2 MHz. There was no VHF noise detected. Note: The rise in the noise spectra around 13.5 MHz was a local RFI source that I was unable to eliminate; it is not characteristic of this power supply. Ditto for the 100 MHz noise. Sorry, I don't have a screen room!

Overall, this is among the quietest switching power supplies that I have measured and easily meets FCC Part 15 (B) requirements for conducted emissions. Filtering at the input and output are exceptionally good. Because of that filtering, I would not expect this supply to cause passive harmonic generation in the presence of strong RF fields Highly recommended for ham radio use.

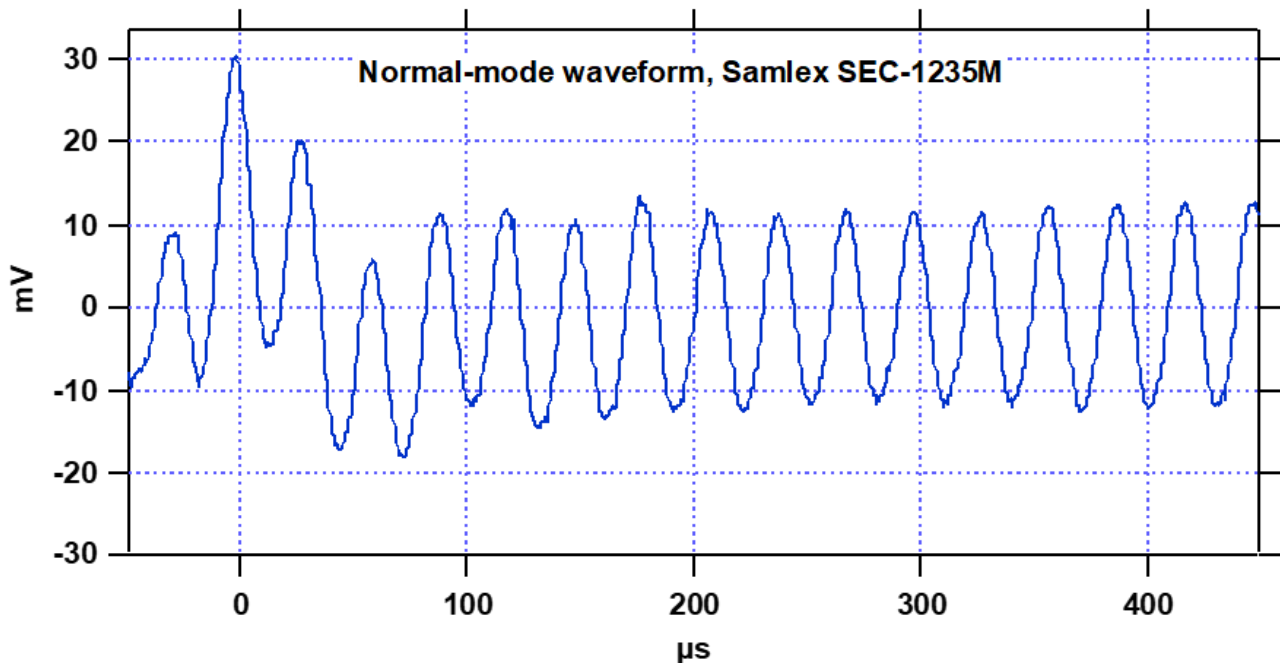
I would also like to put in a plug for Samlex customer service. This supply had an output terminal that we had damaged. After entering a request in the samlex.com online contact form, I was contacted within a couple of hours by a friendly agent. He quickly mailed a new terminal at no charge.



## Normal-Mode Spectrum

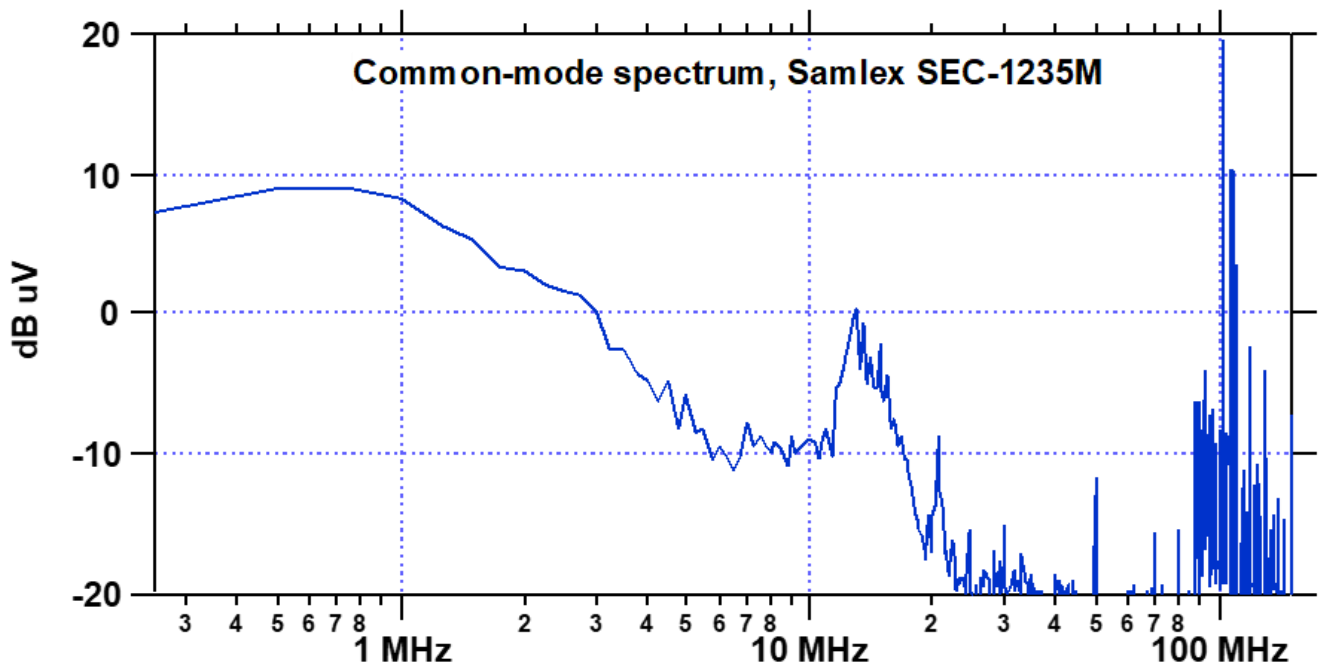


## Normal-Mode Waveform

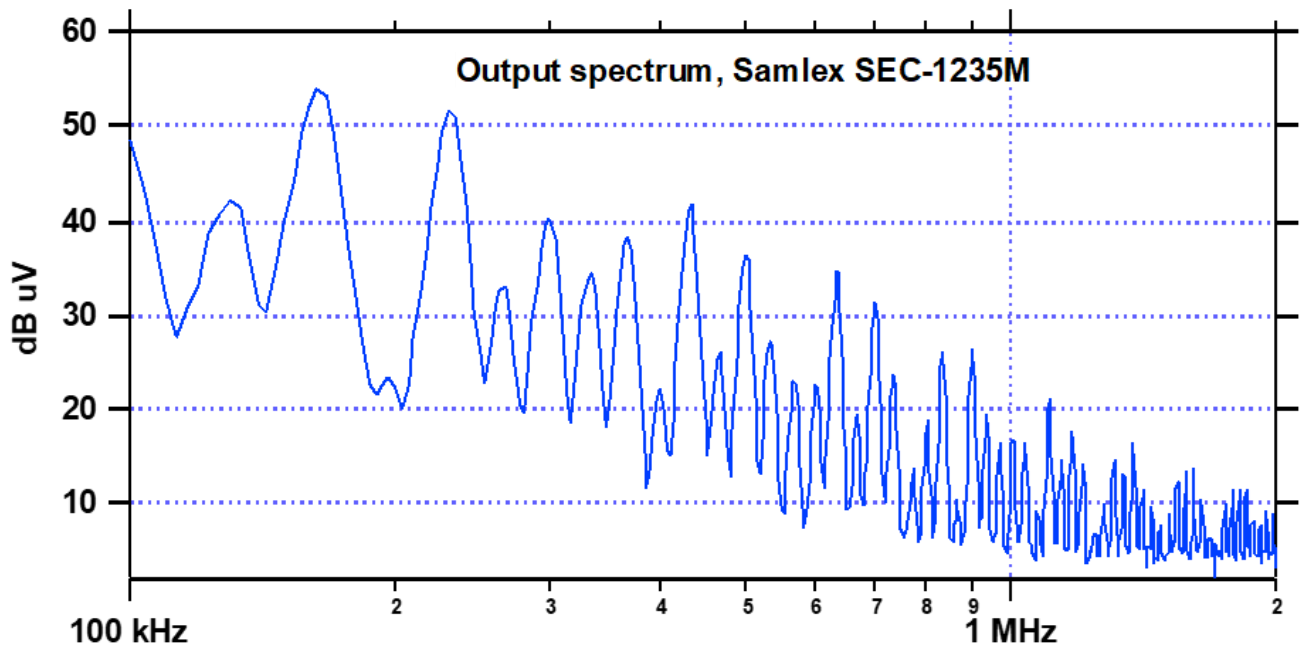




# Common-mode Spectrum



# Output Spectrum



# Point Generator Profile

## John, K6MI

*Interviewed by W1RH*

John, K6MI, is one of our members who resides near the edge of NCCC's 250-mile and 175-mile circles. Both circles run right through the center of Fresno and John's location, on Fairmont Avenue, puts him just inside both circles.

Referring to himself as a Little Pistol QRP guy, John was thrilled to be featured as one of our point generators. In his words:

*I didn't really think I was all that newsworthy, although I've been around the sunspot cycles a few times, and rubbed shoulders with some amazing people.*

**Name/Call Sign:** K6MI

**Past calls:** WN6ITM, WB6ITM

**Location:** Fresno

### **Tell us about your early years:**

I was Licensed in 1963 as a freshman in high school for six months as WN6ITM, and then WB6ITM with an SX-140 (that would blank out if anyone else in town was on), a Viking I, and a HyGain vertical. CW was the only mode available for years. As a poor high school student with a paper route, Collins gear, or SSB gear, or any gear at all was not in the works.

I had heard of DX, so one night at 3 A.M. on 40 CW, I worked Antarctica, KC4. My first DX!, which started a life time of DX'ing. Living in Orange at the time, the local club W6ZE had a big Field Day, and that was my first Field Day. Thereafter a small group of high school hams started doing our own Field Day, and we just finished our 56<sup>th</sup> Field Day with the same group, just adding a few friends over the years, resulting in 35 first place 1A scores, and 8 of the top 10 scores ever. Known as the "Chew's Ridge Gang", it was our habit to go to all the conventions, enter the high-speed pileup contests, and invite the top places to join our team. Pat, AE6EG was our team member who ran the contests. We are honored to have Mike, WA6O, as our top CW operator for the last decade or two. Our way of mastering the scoring (FD is not a contest) was to take a tower trailer, KT36xa, solar panels, and 5 watts out from a K3, CW almost all the way.

Never missing Field Day, but having only time for a minimal fun entrée into other contests, the next four decades was filled with four kids (one is KE6SDF), and a profession (teaching and performing as a violinist), which took up 24/7.

There was some time stolen from work for the vhf contests; first QRP mountain toping three times a year, and then, after meeting N6NB, Wayne Overbeck, roving with 12 radios and antennas in up to 12 grids, with up to 12 other rovers. Great fun! Big scores. Wayne was great at looking at the rules, following them to the letter, and making huge scores. Several hundred certificates have followed.

### **Describe your antenna system:**

160 Sloper

Beverage and flag for RX

80m inverted vee

2 element 40/30m beam

5 element 20m on a 45' boom

5 element 15m

7 elwmmwr 10m

3 element 12m

KT-34a at 70 feet

7 element 6m,

22 elements on 2m, 222MHz, and 432MHz

Beams for 902 and 1.2 GHz

Rover radios and antennas for 6m, 2m, 220 MHz, 432 MHz, 902 MHz, 927 MHz, 1.2 GHz, 2.3 GHz, 3.5 GHz, 5.7 GHz, 10 GHz, 24 GHz, 47 GHz, and adding 122 GHz next.

Monobanders have been made pretty much from scratch for all bands (the M2 factory is only a few miles away, they are great guys!). With seven towers and two tower trailers, it's embarrassing that my QRP scores are not higher. I'm continually amazed at the scores the big guys turn in.

### **If you're working, what is your career? If not, what was your career?**

Teaching and performing as a violinist.

### **Married? Kids? Grandkids?**

Four kids and the XYL, at the age of 73, just got her tech (KN6PRZ) so that she can now be a YL, and we operated the 222 and up contest last month together.

### **How many DXCC entities have you worked?**

Have 9 band DXCC, 10 band WAS, 357 confirmed mixed, need just a few on various modes. Waiting for the next really good sunspot peak to finish 6m DXCC.

### **What Contests have you participated in?**

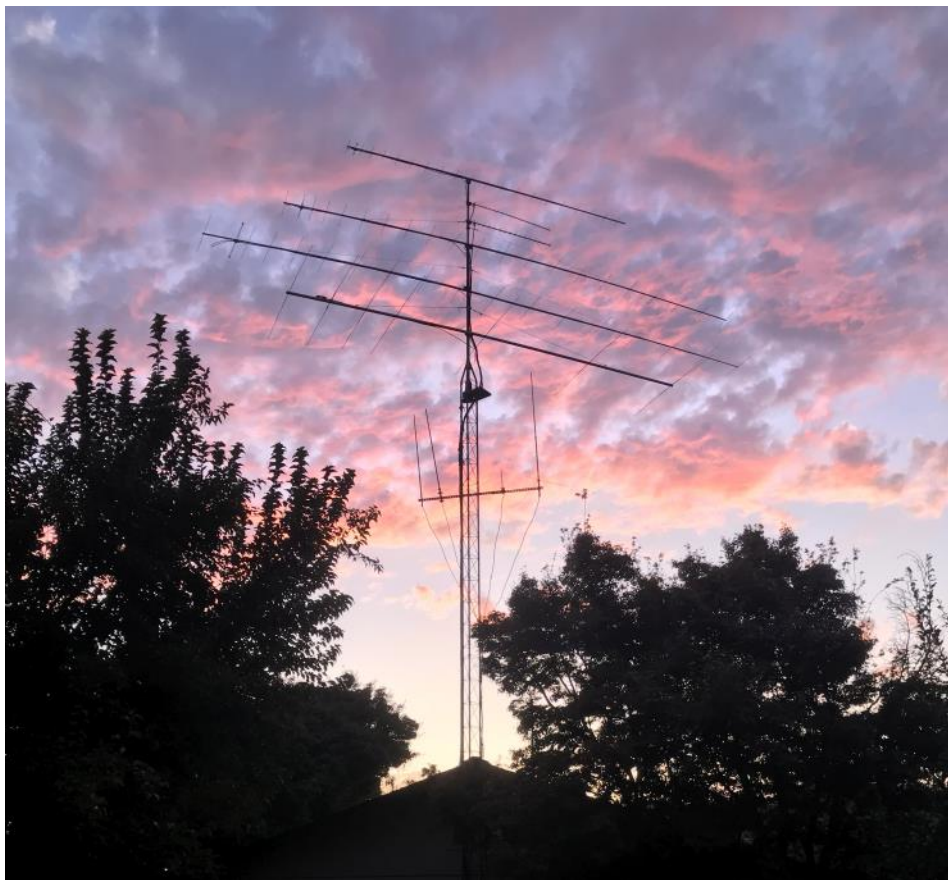
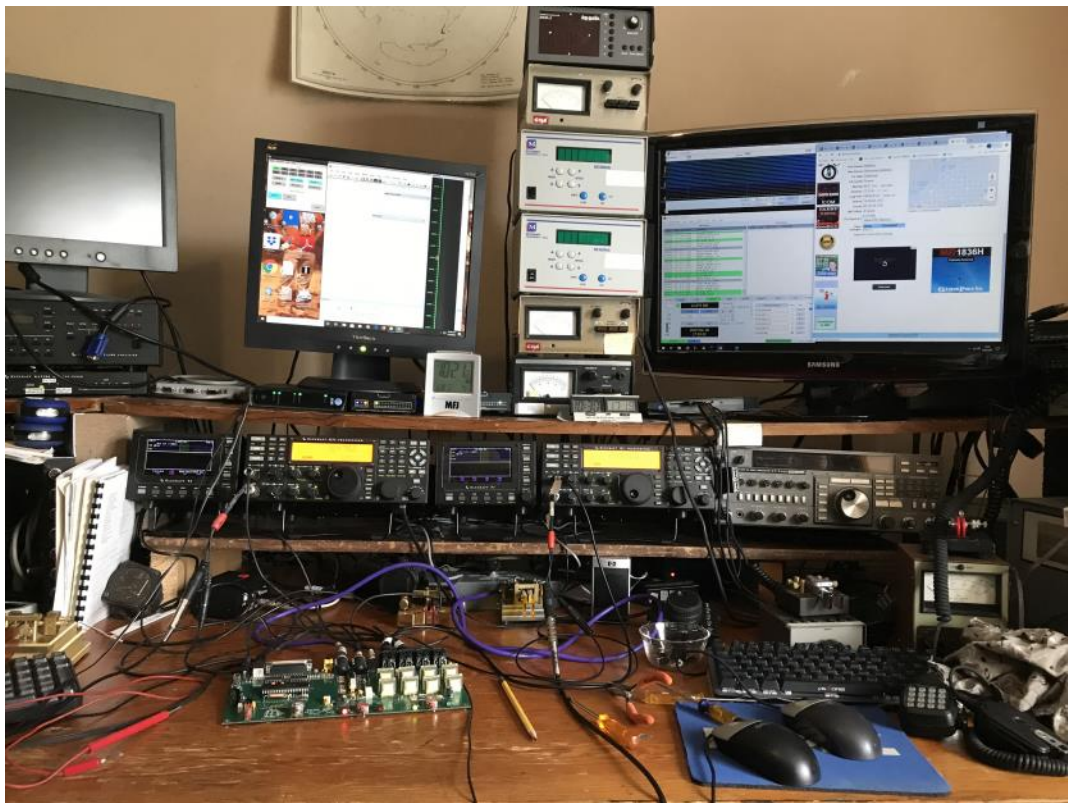
With no concerts to play, teaching is virtual, most activities cancelled, it was actually possible to make some sort of entry in each of the thirty KB Competition contests. The big help was the June VHF multiplier, which was big points. Except for that contest, it was just a few points here and there, having great fun. Again, this year the VHF contest put me way up in the list, and from here I'll slide down as the really big guns come to bear.

### **Any comments about NCCC?**

I've met some really amazing hams. We met Jim, K9YC, and he came on FD with us. Then he made his own team and that was one of the few years we were in second place. But with Jim and Rhino, N6RNO, and some really great hams we went for a dozen years to CQP expeditions to some rare counties. Jim then requested that I break off and take a team to Kings County, a much needed expedition, which we did twice. Last year during pandemic we were here at home in Fresno County. Hope to get back to more expeditions.

### **Anything else you want to add?**

I'm the editor for the Fresno ARC monthly magazine "Skip" (current and past issues at w6to.com).



The not-too-modest K6MI station and a portion of its associated antenna farm in Fresno. These photos should remove any doubts about K6MI's current 3rd place standing in the Platinum KB Competition List



The K6MI Rover



K6MI hanging out with another famous  
contester, OH2BH.



John, K6MI, savoring a John  
McCartney Concert

# Tube Of The Month

**5876**

**Norm, N6JV**

After college, I had some periods of unemployment that I used to study for the commercial radiotelephone licenses. I thought that radio and television broadcasting might be a possible career. When nothing was available, I took a job as a communications technician servicing 2-way radio systems. One of my duties was to go onto mountain tops and service repeaters. Once when one of these repeaters failed, I was introduced to an RCA microwave unit. It was being used as a remote base for a 170 MHz system. I had never seen so many tubes in one six-foot rack. The transmitter had an output of 1 watt or so at 990 MHz. I couldn't find the final amplifier at first. It was a "pencil triode" made for grounded grid service. The body is the diameter of a pencil and is about 2.25 inches long. RCA first marketed the 5876 in 1950 and it was used in transmitters and in test equipment. It has a mu of 56 and could be used up to 3 GHz. Its massive power supply had an output of 300 volts at 25 ma.

Another time when that system failed, a trip with a spare 5876 was made to the mountain. The tube was good but the SWR was high. This system used a pair of 3-foot aluminum parabolic dishes. After a close inspection of the transmit antenna, I took a pair of pliers and like a tooth extraction, removed the 30-caliber bullet from the dipole feed. The feed was bent a bit but still worked while a new feed was ordered.



**The 5876**

Visit the museum at [N6JV.com](http://N6JV.com)



## 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](mailto: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](mailto:secretary.nccc@gmail.com)

## JUG Articles Wanted!

Your help allows us to produce a quality newsletter. Please consider submitting an article!

The editor welcomes any and all relevant articles for inclusion in the JUG.

The preferred format is 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](mailto: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 off-subject posts. Such postings will be considered a violation of the Guidelines.



**Find NCCC on Social Media**  
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**ID-5100A Deluxe**  
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**IC-705**  
HF/50/144/430 MHz All Mode Transceiver

**KENWOOD**



**TS-590SG**  
HF/50MHz Transceiver



**TM-D710G**  
2M/440 Dualband



**TM-V71A**  
2M/440 DualBand



**TM-281A**  
2 Mtr Mobile



**TH-D74A**  
2M/220/440 HT

**YAESU**  
The radio



**FT-991A**  
HF/VHF/UHF Transceiver



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



**FTM-300DR**  
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# K4 HIGH-PERFORMANCE DIRECT SAMPLING SDR



## A direct-sampling SDR you'll love to use

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

## Modular, hybrid architecture adapts to your needs

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

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

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

## Comprehensive I/O, plus full remote control

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

## K4 KEY FEATURES

Optimized for ease of use

Modular, upgradeable design

7" color screen with touch and mouse control

ATU with 10:1+ range, 3 antenna jacks

Up to 5 receive antenna sources

Full remote control via Ethernet



The K4 interfaces seamlessly with the KPA500 and KPA1500 amplifiers

'The performance of their products is only eclipsed by their service and support. Truly amazing!' Joe - W1G0

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# 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.

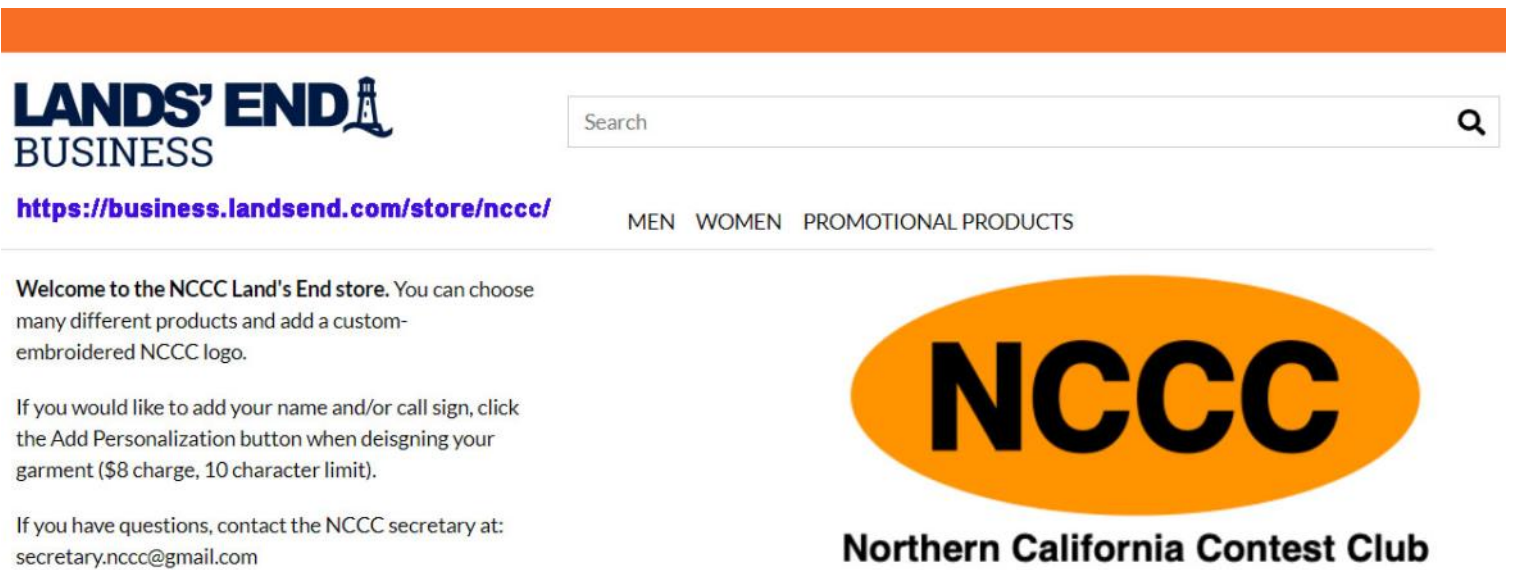
And, you can personalize your item by adding your name and/or call sign. The store is open 24/7 and items are shipped directly to you. No more waiting for everyone else to make up their minds on a group purchase.

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.



**LANDS' END**  
BUSINESS

<https://business.landsend.com/store/nccc/>

MEN WOMEN PROMOTIONAL PRODUCTS

Welcome to the NCCC Land's End store. You can choose many different products and add a custom-embroidered NCCC logo.

If you would like to add your name and/or call sign, click the Add Personalization button when designing your garment (\$8 charge, 10 character limit).

If you have questions, contact the NCCC secretary at: secretary.nccc@gmail.com

**NCCC**  
Northern California Contest Club

## 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.