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Awards Meeting & Annual Elections

Tied House, Mountain View.

April 9th, Tuesday

**6:00 pm Social Hour, 7 pm Dinner,
7:30 pm Program (approx.)**

**Watch the Reflector for more
information !**

Presidents Report:

Reading Contest Rules - Part II

Last month's discussion of the NA Sprint rules has given us a good opportunity to take a fresh look at the contest rules for that contest. Two rules in particular have grabbed the most attention. They are rule 11, the Special QSY rule, and rule 12, "Additional Rules". Let's start with Rule 11. It reads:

"11. Special QSY Rule: If any station solicits a call (e.g., by sending "CQ," "QRZ?" "going up 5 kHz" or any other means of soliciting a response, including completion of a contact where the frequency was inherited), that station is permitted to work only one station in response to that solicitation. The station must thereafter move at least 1 kHz before calling another station, or at least 5 kHz before soliciting other calls. Once a station is required to QSY, that station is not allowed to make another contact on the vacated frequency until or unless at least one subsequent contact is made on a new frequency."

We all read this to say that after we call QSO on a frequency and someone responds, then we must QSY. This is very well spelled out in the rule. If we call another station, we must move at least 1 KHz, if we want to call CQ, then it must be 5 KHz from the previous CQ frequency. But what if no one responds to your CQ and you answer another station calling CQ on that frequency? This is the source of a lot of discussion, and has changed quite a bit from the original rules we saw last month. The answer is also well spelled out.

Continued on page 3



Northern California Contest Club

Excellence In Amateur Radio Contesting

Officers:

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

Volunteers:

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Charter Member	Rusty Epps	W6OAT	w6oat@sbcglobal.net
Awards Chair	Gary Johnson	NA6O	gwj@wb9jps.com
CQP Chair	John Miller	K6MM	k6mm@arrl.net
K6ZM QSL Manager	George Daughters	K6GT	k6gt@arrl.net
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Webinars	Bill Fehring	W9KKN	bill+nccc@w9kkn.net
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

After that QSO, you must again QSY. In this instance, no one inherits the frequency, and both stations must move. Now, one might point out that the contact was not in response to the original call solicitation, and while this may be technically true, it will be very hard to prove otherwise, especially if you had previously answered a call on the frequency. In other words, having three QSOs in a row on a single frequency is forbidden by the rules and must be avoided. But what if the unanswered QSO did not follow a prior QSO on the frequency? This is a bit rougher to answer. A technical reading of the rule will state that the QSO did not come from the original CQ, but rather that attempt was abandoned and the ensuing QSO was an answer to the other station's CQ. In this case you could claim that you had inherited the frequency and should be allowed to then call CQ. Just make sure you hadn't already inherited the frequency or you will be in violation of the rule.

A second part of the discussion asks if the rule can be adjudicated. After all, there is no requirement that specific frequencies be submitted in the log, meaning that you could submit your log with 14000 for 20 meters, 21000 for 15m and so forth. This comes from the use of older transceivers which do not have CAT control or reporting of their operational values. There are a few of these radios still in use in contesting, but not many. Almost all logging programs these days make use of radio data, and will place specific frequencies (to 1 kHz) in the Cabrillo log. What this really means is that if you decide to submit your log with band edges instead of specific frequencies, the contesters you communicate with most certainly will have specific frequencies in their log. Log cross-checking will then point out the three QSOs on one frequency transgression, and you will be penalized. This is one of the very cool concepts that comes from log checking, that the entire contest can be recreated in a computer based on the submitted logs, and a very accurate detail of everything that occurred will be presented, including the transgressions of those who flaunt the rules.

So what's the upshot of all this? The best thing to do is that when you call CQ and someone answers you, be sure to QSY after the contact. You probably will want to move at least 5 KHz when you do, especially if you will immediately call CQ instead of answering someone else's call.

Now let's take a look at the next rule that has a bit of surprise for new contesters. That would be rule 12:

12. Additional Rules: Simultaneous transmission on more than one frequency is prohibited. All contacts must be sent and received using means that require real-time human intervention, detection, and initiation. Each operator must use only one call sign during the contest.

The first part covers SO2R and similar styles of operation, and results from the very clever use of a device called an "Octopus" that was developed by our own K5RC. This device provided a lock-out mechanism so that several ops could be operating on a band, but only one could transmit at a time. In this case that sentence simply means that you may only transmit on one radio on one frequency at a time. In SO2R operation you must be listening on the alternate radio while transmitting on the run radio. It doesn't matter if it is on separate bands, only one signal is allowed at a time.

The second part seems to be where the surprise comes. Very simply stated, it says that you must copy the code by yourself. No code readers are allowed. It also seems to say that you must also send CW by hand key, although I don't believe that is its intent. The rule is widely interpreted to mean that sending with a paddle or pressing a button on the computer to send the message falls under the term of "initiation," so they are perfectly good for use. It is the term "detection" that is the cause for argument, and this is the term that effectively means that you must copy the code by ear and not by a code reader.

Lastly, we see that you must use a single call sign during the contest. This seems to be another overlooked rule. Very specifically it disallows HMO-style of operation where I might go to another

station, operate with their call, then come home and finish the contest using my call. This might be quite a feat noting that the contest is only four hours long, but it could be accomplished. Once again, follow the rule and only use one call in this contest.

As we have seen, contest rules evolve over time in order to resolve loopholes and work-arounds in their intent. One change I would expect to see in the rules for this contest will be a requirement that frequencies be logged with 1 KHz resolution. Are there ops who look for these loopholes in rules? Specifically yes; that's how the HMO style of operation came about for ARRL Sweepstakes, careful research and reading by a very smart and clever NCCCer. A quick aside - what is HMO? Originally it stood for Highly Motivated Operator, someone who would operate the first half of a contest at one station with one call, then change to another station and operate the second half of the contest with a different call. This was meant to dramatically increase the points earned for the club since all the stations that were worked using the first call could be worked again with the second call. It was very effective in helping the club win several Sweepstakes championships.

Rules are not crafted to catch operators, but rather to provide a playing ground for all to abide and allow entrants a fairly equal chance in the contest. Each contest has its own flavor, the NA sprint is unique because of the QSY rule, requiring entrants to not run on a single frequency as other contests allow, but to search and pounce as well. There are other things, like propagation and location that provide the unlevelled playing ground. The rules are expected to be even among all participants.

What's the upshot of all this? Pretty simple - before every contest download the contest rules and give them a thorough read so you understand what you can and cannot do. If you have any questions or doubts, ask. Then follow the rules!

73!
Jack, W6FB

***** NCCC.CC - Members Only Web Section *****

Please note that around Mid-March, the password to the NCCC members only section of the website will change.

The new password will only be issued to current members that appear on the roster and the notification will be delivered via Member Planet.

Please do not share this password with anyone!

If you have any questions or need help, contact:
Ian W6TCP w6tcpian@gmail.com

Point Generator Profile – N6PN
(Interviewed by Bob, W1RH)

I never know what I'm going to uncover when doing one of these Point Generator Profiles and this one, from Matt N6PN, was like finding a gold nugget! You'll find it near the end.

Matt has been working the contests for years and years. He does it from his station or as a guest operator at other stations. When operating from his station, which is very modest (no Yagis) and on a small lot, his numbers are quite impressive. In the past month, he's made 446 Q's in ARRL DX CW and 506 Q's in NAQP CW. This has been the case year after year. Matt is a true KB'er, always supporting our focus contests, especially when it means operating CW. I've also seen some very impressive SS scores from this guy!

Now, more from Matt:

Name/Call Sign: Matt Futterman, N6PN

Past calls: WN6KPN (1964), WB6KPN (1965-1977)

Location: Concord (CM97aw)

How much property do you have? Medium size suburban lot

Describe your antenna system:

Current: Butternut HF6V vertical used on all bands 10 through 160
Bravo 5A vertical used on 10 through 20
G5RV Jr used primarily for diversity reception on 20 through 80
Dipoles used on 10 through 20

Future: I'd like to raise the dipoles and put up a small Yagi for 10 through 17 (though that may not be possible)

What's in your shack? An Elecraft K3, some antenna switches, a paddle, a headset and an occasional laptop

What are your previous QTH's? Van Nuys, Woodland Hills, Reseda (all CA)

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

I worked 35 years for the University of California (UCLA and UCB) as a software engineer. I'm currently semi-retired and work for the Scientific Analysis Corporation, where I am leading the upgrade and ongoing development of survey data collection software used by major academic institutions throughout the world.

Married? Kids? Grandkids?

I've been married to my wife Rhonda for 31 years. My son Andrew is a budding musician.

How many DXCC entities have you worked?

I'm pretty sure I have most of them confirmed, but as long as I hear the operator at the other end come back with my call I'm good. That's the thrill of DXing for me. That and occasionally beating out the big guns!

What's your favorite contest?

I've come to really enjoy and appreciate the CQP. It's fun having other stations call you! I also enjoy the major DX contests (which I work mostly for the DX and not for the score), the NAQP and Sweepstakes (which, for the past several years I've had the pleasure of participating in from N6TV's fine station). I participate pretty much exclusively in CW contests.

Any tips for contesters?

The key, especially if you're operating from a small station, is to find out what you really enjoy about contesting. For me, it's going head-to-head with bigger stations, improving on my previous scores, and knowing how to relax and enjoy the contest (this gets more important as you get older!).

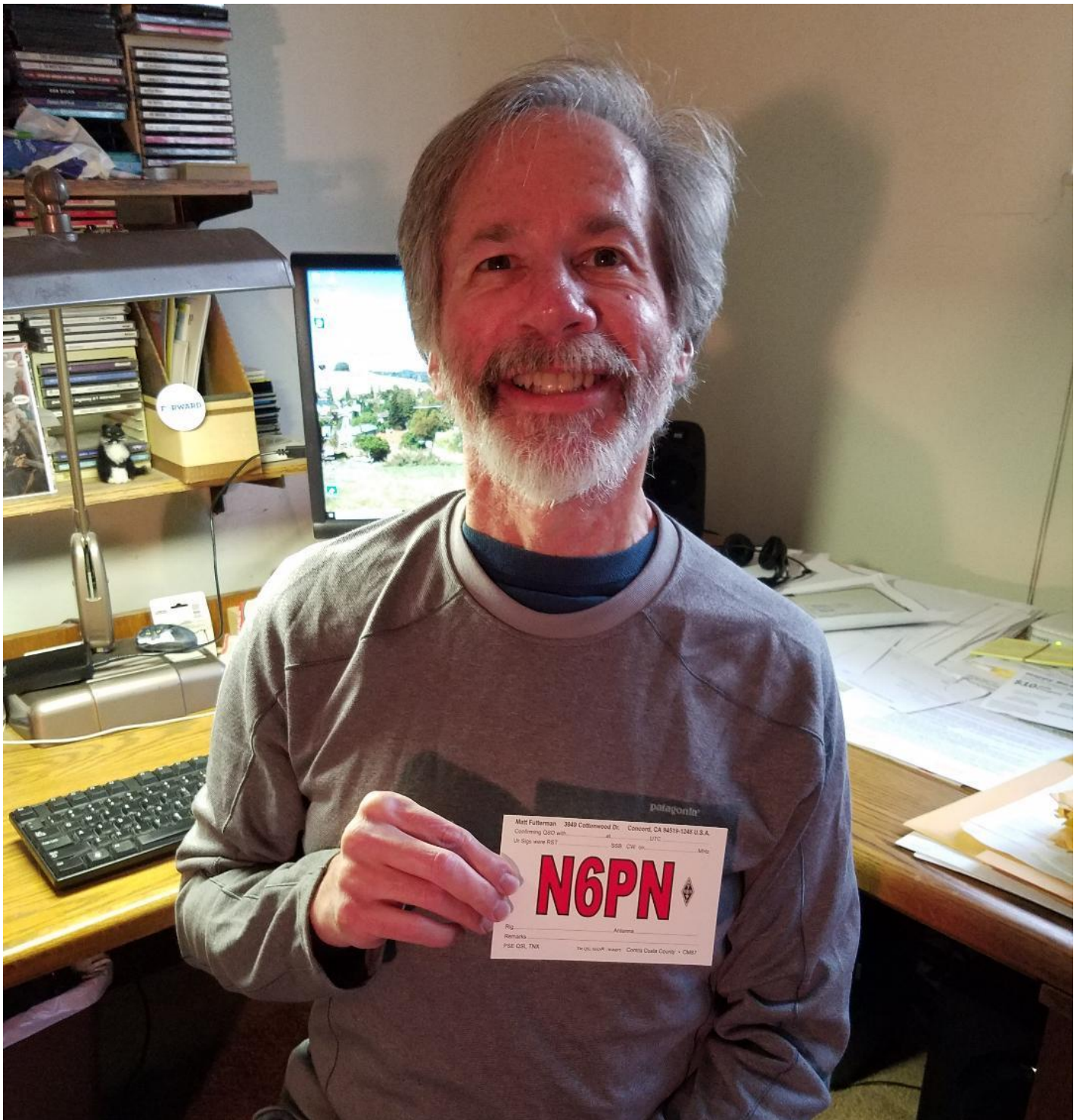
What other ham radio activities have been important to you?

When I was 15 years old (1966) I founded what turned out to be called the West Valley Amateur Radio Club (WVARC), the "West Valley" being the western end of the San Fernando Valley. Most of our members were in their early to mid teens, which caught the attention of the ARRL. John Griggs, W6KW, attended one of our meetings and mentioned that the League was interested in producing a film featuring young hams and, he asked, would anyone in the club be interested in participating in the project. I volunteered, and in 1969 I worked with Dave Bell, W6AQ, in making the movie Ham's Wide World. The film has scenes showing me in my home shack and my SB-line having a QSO with Enrique, XE2RH (disclosure: it was a simulated QSO). However, I had a real QSO with K8ZLS in Livonia Michigan during a "field day" that the WVARC staged during a monumental rain storm in January 1969. A couple of years later I narrated another ARRL/Dave Bell film titled This Is Ham Radio.

Another thing about the WVARC that is special to me is the number of prominent hams who emerged from that club, including a 12 year old Larry "Tree" Tyree (N6TR), 16 year old Marty Woll (N6VI), 14 year old Leigh Jones (KR6X) and our own Bob Wilson (N6TV) who, at age 15, wowed the whole club with his level of operating in the novice tent during the 1972 Field Day. And perhaps the best antenna man in the club at that time was the teenage version of the NCCC's very own Ken Beals, now K6MR (Magnet Radio).

Any other hobbies besides ham radio?

I sing and play bass guitar and have been in several classic rock bands, including one that I've been in for 13 years. When I finally retire, I'd like to compose music and find a lot more time for reading (and hamming!). I also enjoy travel (I've been to 49 states - I'm missing Oklahoma) and casual hiking with my wife. Also, if you have interesting postage stamps that you don't want, I am happy to collect them.



patagonia
Matt Futterman 3949 Cotatiwood Dr. Concord, CA 94519-1242 U.S.A.
Celebrating QSO with _____ at _____ LTTC _____
Lic Sigs were RST _____ SSB CW on _____
N6PN
Pig _____ Atlanta _____
Remarks _____
F0E QRP TNM _____











Mortty - An Inexpensive Solution to the FSK Keying Problem

After years of avoiding RTTY operation, I recently decided to find out what I had been missing. The stimulus for this came from FT8 operation in the RTTY Roundup. I had fun with that, so why not step up to the real game? CQ-WPX-RTTY provided the first opportunity. The week before the contest W9KKN helped me set up the computer for operation. I use a Macintosh, running N1MM+ in a virtual machine. We got the program going, then set up the RTTY helper programs. Everything seemed to be working well until we hit the transmit button. The TX audio, using AFSK just wasn't right. That was backed up by the fact that none of the reliable Reverse Beacon Network stations were responding. Using the direct path from N1MM+ to the radio's USB audio channel was the problem. The workaround was to use the default audio paths, something that opened me up to transmitting computer beeps, warnings and other undesired sounds. I managed to operate two contests without a problem, but a better solution was needed. The solution seemed to be to use FSK instead of AFSK, but how do we control the radio's FSK input?

At this point I remembered a discussion I had with WK6I at IDXC last year. He told me about a little interface called Mortty. I quickly grabbed the computer and brought up a search site to look for info about Mortty. What I found was very interesting!

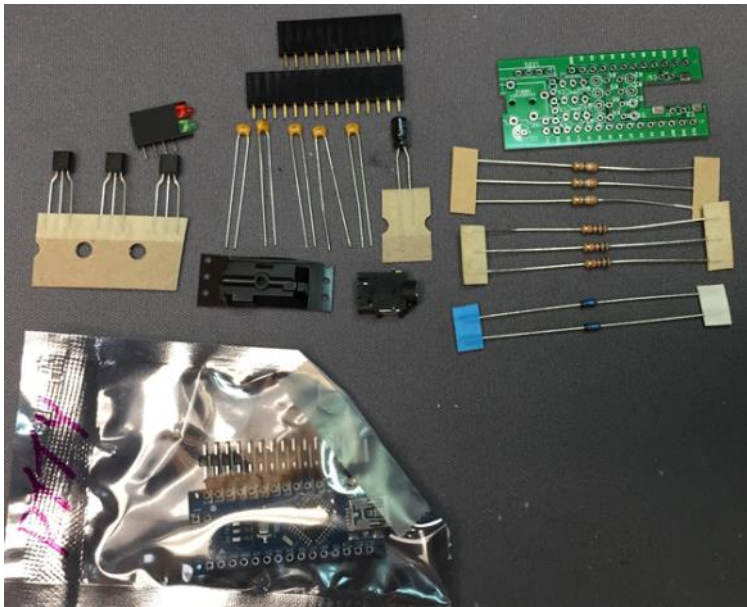


Mortty is a small device that connects to the computer's USB port on one side, and to the radio's FSK and PTT inputs on the other. The contest program (in my case N1MM+) sends exchange data to the Mortty, which then encodes the data into Baudot and switches the FSK output so that the radio properly sends data at precisely the right rate for standard RTTY signaling. This was exactly what I needed. The price was exceptional - \$18.00. Rather than just fire off an order for the device, I noted the developers had a special for multiple Morttys. Order 10 or more and shipping is free. Never one to pass up a bargain, I posted an inquiry to the club

reflector to see if others might be interested. Perhaps this is the club project we had discussed so long ago.

So exactly what is a Mortty? It consists of an Arduino Nano board and an interface card that provides the input and output connections. Included is an enclosure, USB cable and all the parts to build the device. Key here are the size and price. The completed Mortty in its case is 2 inches long by 1 inch square. After looking at everything that comes in the package I have to wonder how the developers don't lose money on each unit they ship. The developers? That would be Larry, K8UT and Steve, N8AR. They have done an outstanding job with this kit. The Arduino Nano runs the TinyFSK code (called a sketch in Arduino parlance) created by K0SM, and comes loaded on the Arduino. The Mortty can also run K3NG's CW sketch, which turns the Mortty into a CW Keyer that responds to Winkeyer commands. When used with this sketch, Mortty has an input for a paddle, making it a real keyer. You can switch between the two operating modes by simply loading whichever sketch you wish into the device.

Response to my post was very good. Within two days there were firm orders for 24 devices. After several exchanges with K8UT I placed an order, and the devices came in a few days later. They are now in the process of being delivered, a process which will continue for a while. If there is further demand, we will handle a second (or more) order, so perhaps this really is an interesting club project.



So what is it like to build a Mortty? It is easier than it looks at first glance. The hardest part is making sure that none of the parts touch the case. With two circuit boards, three transistors, six resistors, 5 capacitors, two diodes and a number of connectors, this can be a chore. It is made much easier with the use of side-cutters which allow the component leads to be cut close to the circuit board.

The developers made very good use of board space, standing resistors and diodes on end to conserve board space by making use of the space between the board

My Mortty took about a half hour to build, including time to take pictures.



The bring-up exercise was amazingly simple. I simply plugged the provided USB cable into the Mortty, and the other end into my Mac computer. The Mac immediately recognized the serial port on the Arduino Nano, and TinyFSK status started showing up in the serial terminal's window. All that is needed now is a cable to go from Mortty's 3.5mm phone connector to my K3's FSK

connector, then I will be ready to go. Let's see, when is that next RTTY contest?



More information about Mortty, including the assembly manual and a helpful video, can be found at the Mortty site: <http://hamprojects.info/mortty/>

If you are interested in getting in on the group purchase, drop me a note at the email address below. We need at least 10 units to be able to get in on the free shipping offer, and I will deliver the units at the next club meeting after the order is placed. Then you, too, can marvel at how K8UT and N8AR have managed to not only pack so much into a small package, but manage to deliver all this for only \$18.00.

73, Jack W6FB jackbrindle@me.com

NCCC Annual KB Competition Rules

Revised March 1, 2019



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

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

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

Eligible contests: Currently, points from 29 contests are counted. See the table on the next page

Scoring:

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

Where N_Contests is the number of contests you participated in, with a maximum value of 20. Points for all contests in which you participate are always counted.

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. Scores obtained by use of High Power in the 6 NAQP competitions and the NS CW/NS CW Ladder series will not be counted for the KB competition, either as scores or as contest multipliers. Scores are counted regardless of which club received the contest points (NCCC, MLDXCC, REDXA, PL259, etc.). The only requirement is that you **MUST** be an NCCC member to receive credit for the contest, and to be eligible for an award.

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

Awards: Paid NCCC members may receive awards.

How to Improve Your Standing

Post all your scores on 3830. Those are the only ones that count.

Participate! Even the smallest score has value. Every contest on the list is a multiplier.

Try a new mode or a new band (VHF, 10, 160).

Try the sprints. Small score, big multiplier.

Go for a big score in WPX: Exponential score growth and a big multiplier.

Join a multi-op: The score is split among ops.

Let someone else use your station: You get 25%.

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

Contact: Gary NA6O, NCCC Awards Manager, gwj@wb9jps.com

NCCC Annual KB Competition Table

Contest	Month	Mult
ARRL DX Contest SSB	March 2	10
CQ WPX SSB	March 30	10
7QP	May 4	20
NEQP	May 4	150
CQ WPX CW	May 25	5
ARRL June VHF	June 8	500
RAC Canada Day	July 1	15
IARU HF World Championships	July 13	10
NAQP Summer RTTY	July 20	25
NAQP Summer CW	August 3	25
NAQP Summer SSB	August 17	25
CQWW RTTY	September 28	5
NA Sprint Fall CW	September 8	150
CQP	October 5	10
Makrothen RTTY Contest	October 12	1
CQWW SSB	October 26	6
ARRL Sweepstakes CW	November 2	15

ARRL Sweepstakes SSB	November 16	15
CQWW CW	November 23	3
ARRL 160 Meter Contest	December 6	30
ARRL 10 Meter Contest	December 13	100
ARRL RTTY Roundup	January 4	50
NAQP Winter CW	January 11	25
NAQP Winter SSB	January 18	25
NA Sprint Winter CW	February 2	150
CQ WPX RTTY	February 8	10
ARRL DX Contest CW	February 14	4
NAQP Winter RTTY	February 22	25
NCCC Sprint CW	Weekly	50

KB Award Brackets

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

Platinum	Gold	Silver
AD6E	K3EST	AE6JV
AE6Y	K6AW	AJ6CY
AF6SA	K6DGW	K0BEE
AJ6V	K6IJ	K0JP
K2RD	K6JS	K6KR
K5RC	K6MR	K6MI
K6DAJ	K6NV	K6OK
K6EU	K6RIM	K6RB
K6GHA	K6TQ	K6ST
K6LRN	K6UFO	K6TD
K6MM	KH2TJ	K6UM
K6SRZ	KH6LC	K6XN
K6XX	N0KQ	K6XV
K7XC	N2NS	K7GK
K9YC	N5KO	K7MKL
KA6BIM	N6EE	KA6W
N3RC	N6IE	KD6WKY
N3ZZ	N6JV	KE6GLA

Platinum	Gold	Silver
N6RO	N6KT	KE8FT
N6TV	N6PN	KF6NCX
N6WM	N6RK	KI6OY
N6ZFO	NC6R	KM6I
N7MH	NJ6G	KU7Y
NA6O	VE3RUA	KX7M
NW6P	W6DR	N6DE
W0YK	W6EU	N6DW
W1RH	W6FB	N6GD
W1SRD	W6IA	N6JS
W2SC	W6JTI	N6NU
W6FA	W6LD	N6XI
W6OAT	W6NV	N6YEU
W6SX	W6RC	NQ6N
W9KKN	W7IV	NR6Q
WC6H	WB6JJJ	OH1VR
WX5S	WU6W	VY1JA
		W6GJB
		W6NL
		W6RGG
		W6SC
		W6SR
		WA6O
		WE6Z
		WK6I
		WU6X
		WX6V

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

March 12th, Tuesday

South Bay, Venue / Presentation TBA **CANCELLED**

April 9th, Tuesday

Awards Meeting & Annual Elections, Tied House, Mountain View.

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 !

Tube Of The Month

Norm, N6JV

Visit the Museum: www.n6jv.com

833

In 1937, RCA developed a high powered tube that remains popular today. The 833 was a big, stocky tube about the size of a Mason jar. It has a special filament socket and heat dissipating connectors for the grid and plate. At maximum power, it has an output of 800 watts without forced air cooling. This tube could be used by hams who wanted a single tube that would run the legal limit. RCA promoted the tube for hams but it was also adopted for use in many commercial AM broadcast transmitters. The tube had a large zirconium coated plate that had a bad habit of turning red hot in its center when pushed too hard. If the voltage was increased from 3300 to 4000 VDC, and forced air applied, the tube could be pushed to 1800 watts input. By the start of WWII, the tube was designated the 833A.

After WWII and the large number of power tubes like the 304TL being so cheap, the 833A had limited popularity with hams, but was used in several commercial RCA and Gates broadcast transmitters. I remember seeing a pair of them in the big transmitter at the Voice of America in Dixon, CA. They can still be found today in industrial heating oscillators and small town AM stations. In recent years the Russians have been making the 833C that has a carbon plate. The 833(A) is an impressive looking tube and they are popular with audio amplifier builders. The sockets are getting more expensive than the tubes.

Tube Of The Month

Norm, N6JV

Visit the Museum: www.n6jv.com





Contest Calendar— March page 1

NCCC RTTY Sprint	0145Z-0215Z, Mar 1
QRP Fox Hunt	0200Z-0330Z, Mar 1
NCCC Sprint Ladder	0230Z-0300Z, Mar 1
Novice Rig Roundup	0000Z, Mar 2 to 2359Z, Mar 10
ARRL Inter. DX Contest, SSB	0000Z, Mar 2 to 2400Z, Mar 3
Wake-Up!QRP Sprint	0600Z-0629Z, Mar 2 and 0630Z-0659Z, Mar 2 and 0700Z-0729Z, Mar 2 and 0730Z-0800Z, Mar 2
Open Ukraine RTTY Championship	1800Z-2059Z, Mar 2 (Low Band) and 2100Z-2359Z, Mar 2 (Low Band) and 0800Z-1059Z, Mar 3 (High Band) and 1100Z-1359Z, Mar 3 (High Band)
UBA Spring Contest, CW	0700Z-1100Z, Mar 3
SARL Hamnet 40m Simulated Emerg Contest	1200Z-1400Z, Mar 3
NSARA Contest	1200Z-1600Z, Mar 3 and 1800Z-2200Z, Mar 3
RSGB 80m Club Championship, Data	2000Z-2130Z, Mar 4
ARS Spartan Sprint	0200Z-0400Z, Mar 5
AGCW YL-CW Party	1900Z-2100Z, Mar 5
QRP Fox Hunt	0200Z-0330Z, Mar 6
Phone Fray	0230Z-0300Z, Mar 6
CWops Mini-CWT Test	1300Z-1400Z, Mar 6 and 1900Z-2000Z, Mar 6 and 0300Z-0400Z, Mar 7
UKEICC 80m Contest	2000Z-2100Z, Mar 6
NRAU 10m Activity Contest	1800Z-1900Z, Mar 7 (CW) and 1900Z-2000Z, Mar 7 (SSB) and 2000Z-2100Z, Mar 7 (FM) and 2100Z-2200Z, Mar 7 (Dig)



Contest Calendar— March page 2

SKCC Sprint Europe	2000Z-2200Z, Mar 7
NCCC RTTY Sprint	0145Z-0215Z, Mar 8
QRP Fox Hunt	0200Z-0330Z, Mar 8
NCCC Sprint	0230Z-0300Z, Mar 8
YB DX RTTY Contest	0000Z-2359Z, Mar 9
RSGB Commonwealth Contest	1000Z, Mar 9 to 1000Z, Mar 10
SARL VHF/UHF Analogue Contest	1000Z, Mar 9 to 1000Z, Mar 10
South America 10 Meter Contest	1200Z, Mar 9 to 1200Z, Mar 10
F9AA Cup, SSB	1200Z, Mar 9 to 1200Z, Mar 10
SKCC Weekend Sprintathon	1200Z, Mar 9 to 2400Z, Mar 10
AGCW QRP Contest	1400Z-2000Z, Mar 9
Oklahoma QSO Party	1500Z, Mar 9 to 0200Z, Mar 10 and 1400Z-2100Z, Mar 10
Stew Perry Topband Challenge	1500Z, Mar 9 to 1500Z, Mar 10
EA PSK63 Contest	1600Z, Mar 9 to 1600Z, Mar 10
TESLA Memorial HF CW Contest	1800Z, Mar 9 to 0559Z, Mar 10
QCWA QSO Party	1800Z, Mar 9 to 1800Z, Mar 10
Idaho QSO Party	1900Z, Mar 9 to 1900Z, Mar 10
QRP ARCI Spring Thaw SSB Shootout	2200Z-2300Z, Mar 9
North American Sprint, RTTY	0000Z-0400Z, Mar 10
UBA Spring Contest, 2m	0700Z-1100Z, Mar 10
WAB 3.5 MHz Phone/CW	1800Z-2200Z, Mar 10
Wisconsin QSO Party	1800Z, Mar 10 to 0100Z, Mar 11
4 States QRP Group Second Sunday Sprint	0000Z-0200Z, Mar 11
QRP Fox Hunt	0100Z-0230Z, Mar 13
Phone Fray	0230Z-0300Z, Mar 13
CWops Mini-CWT Test	1300Z-1400Z, Mar 13 and 1900Z-2000Z, Mar 13 and 0300Z-0400Z, Mar 14
RSGB 80m Club Championship, CW	2000Z-2130Z, Mar 13
AWA John Rollins Memorial DX Contest	2300Z, Mar 13 to 2300Z, Mar 14 and 2300Z, Mar 16 to 2300Z, Mar 17



Contest Calendar— March page 3

QRP Fox Hunt	0100Z-0230Z, Mar 15
NCCC RTTY Sprint	0145Z-0215Z, Mar 15
NCCC Sprint	0230Z-0300Z, Mar 15
BARTG HF RTTY Contest	0200Z, Mar 16 to 0200Z, Mar 18
Russian DX Contest	1200Z, Mar 16 to 1200Z, Mar 17
Virginia QSO Party	1400Z, Mar 16 to 0400Z, Mar 17 and 1200Z-2400Z, Mar 17
Louisiana QSO Party	1400Z, Mar 16 to 0200Z, Mar 17
AGCW VHF/UHF Contest	1400Z-1700Z, Mar 16 (144) and 1700Z-1800Z, Mar 16 (432)
Feld Hell Sprint	2000Z-2159Z, Mar 16
UBA Spring Contest, SSB	0700Z-1100Z, Mar 17
Run for the Bacon QRP Contest	0100Z-0300Z, Mar 18
Bucharest Contest	1800Z-2059Z, Mar 18
CLARA Chatter Party	1700Z, Mar 19 to 1700Z, Mar 20 and 1700Z, Mar 23 to 1700Z, Mar 24
QRP Fox Hunt	0100Z-0230Z, Mar 20
Phone Fray	0230Z-0300Z, Mar 20
CWops Mini-CWT Test	1300Z-1400Z, Mar 20 and 1900Z-2000Z, Mar 20 and 0300Z-0400Z, Mar 21
NAQCC CW Sprint	0030Z-0230Z, Mar 21
QRP Fox Hunt	0100Z-0230Z, Mar 22
NCCC RTTY Sprint	0145Z-0215Z, Mar 22
NCCC Sprint	0230Z-0300Z, Mar 22
FOC QSO Party	0000Z-2359Z, Mar 23
UK/EI DX Contest, CW	1200Z, Mar 23 to 1200Z, Mar 24
North American SSB Sprint Contest	0000Z-0400Z, Mar 24
UBA Spring Contest, 6m	0600Z-1000Z, Mar 24
SKCC Sprint	0000Z-0200Z, Mar 27
QRP Fox Hunt	0100Z-0230Z, Mar 27
Phone Fray	0230Z-0300Z, Mar 27
CWops Mini-CWT Test	1300Z-1400Z, Mar 27 and 1900Z-2000Z, Mar 27 and 0300Z-0400Z, Mar 28
UKEICC 80m Contest	2000Z-2100Z, Mar 27
RSGB 80m Club Championship, SSB	2000Z-2130Z, Mar 28
QRP Fox Hunt	0100Z-0230Z, Mar 29
NCCC RTTY Sprint	0145Z-0215Z, Mar 29
NCCC Sprint	0230Z-0300Z, Mar 29
CQ WW WPX Contest, SSB	0000Z, Mar 30 to 2359Z, Mar 31
Feld Hell Sprint	0000Z-2359Z, Mar 30



NCCC Membership Information

If you wish to join NCCC, you must fill out an [application for membership](#), which will be read and voted upon at the next 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).

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 !

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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