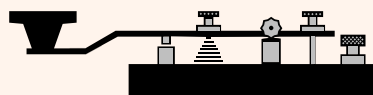


NAQCC NEWS



ISSUE 290 • AUGUST 2022



KEY CLICKS

• **IN THIS ISSUE**

The Prez Sez... we need a treasurer; QSO Parties are back; A homebrew ATU in a perfect portable package; Sprint results; "Morsle" code game; Dead band tips; Beautiful paddles from junk; Mountaintop QSO partying; A blue-blooded challenge; The joys of CQ; Net reports; Awards; Chapter outing reports; and more.

• **OPERATING AS N3A**

Our 18th Anniversary celebration is a little more than two months away and we have only four signups so far. It is a great way to work QRPx2 contacts and acquaint CW ops with our club. More details on page 4.

• **\$200 POCKET KNIFE?**

Sure you could pay that much for a fancy one, but Leatherman used to sell the little Squirt E4 model for \$30. E for electrical, with wire strippers and a #2 Phillips screwdriver. Joe N2CX #4707 (SK) swore by his. Since they quit making it, hams have driven the price up so even a pocket-battered one goes for \$130! If you're lucky enough to have one, take care of it.



• **YOUR ARTICLE NEEDED!**

Please take a few minutes to tell us about your latest excursion, that thing you built, your favorite rig, or something funny. As long as it relates to QRP CW. Send it to Paul KD2MX: kd2mx@arrl.net

• **UPDATE YOUR MEMBER INFO**

Any time you change your QTH, email, or callsign, you can update your member info with a simple online form. First, check your information at <http://naqcc.info/memberlist.php> to make sure the rest of the fields are correct and then fill out the member update form here: http://naqcc.info/member_updates.html

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THE PREZ SEZ...

GREETINGS NAQCC MEMBERS!

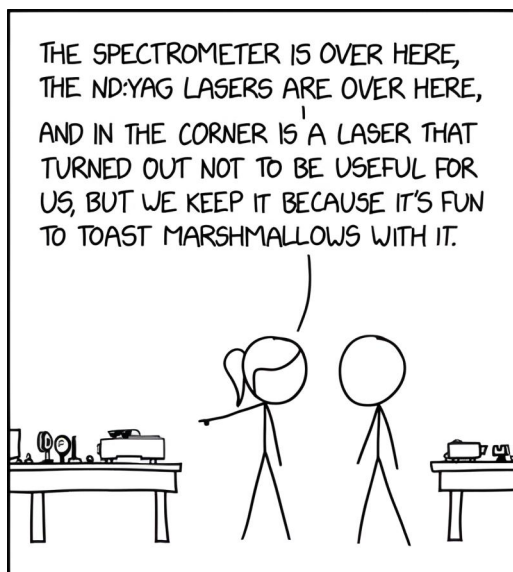
OUR CLUB NEEDS A NEW TREASURER!

Our current Treasurer has asked to be replaced.....our preference is someone who lives in the State of Georgia, as that is where our Corporation/Tax Exempt status is from.

There is no that much activity, other than a PayPal payment and keeping tbs on donations. It is not a labor-intensive position. AND.....we will do most of the heavy lifting (I do the tax and exempt stuff.....). If you are interested, please drop me an e-mail!! sszabo1@cfl.rr.com

BE IN THE NEWS

Our Newsletter Editor Brent WT4U is always looking for submissions for the Newsletter - anything related to NAQCC, QRP CW. Send Spotlight Editor Paul K2DMX an e-mail if you have something to submit or need more information - kd2mx@arri.net.



EVERY LAB IN EVERY FIELD HAS SOME PIECE OF EQUIPMENT LIKE THIS.

xkcd.com

AUGUST NAQCC ACTIVITIES:

-- **Regular Monthly Sprint** – Wednesday, August 10, 2022, 0030-0230 Z- (That's the evening of Tuesday, August 9, 2022 for us here in North America).

<http://naqcc.info/contests.html>

-- **August 2022 Monthly Challenge** – The Medical Product Safety Challenge -

<http://naqcc.info/challenges/challenges202208.html>

-- **Weekly Nets** - http://naqcc.info/cw_nets.html

Hope to see you in the Sprints! Stay safe and get radio-active!

AND HAVE FUN!

72173!

**Steve Szabo WB40MM #5913
NAQCC President**



A little bit of QRP on a wire goes a long way!



18TH ANNIVERSARY CELEBRATION

Plans are underway for the week of October 9-15th when our volunteers will be operating with our N3A call. We would like to get operators in all 10 call districts and KH6 and KL7. We also invite any of our members outside of the US and Canada to add some DX flavor to the Anniversary. We also designate special ops who can put out the call during October's regular Sprint. We will take all comers for the anniversary but only one op can work from each district during the sprint. First come, first served!

Unlike the Sprint, your operating schedule is totally flexible, which means you can be on the air when the bands are open, and you are awake. All bands are in play including the WARC bands and hunters can see who is on the air by checking out the database on our website, which lists spots and schedules for our N3A ops. It doesn't matter if you are an old hand or new to QRP CW. With improving propagation, you never know how far you will go with five watts (or less).

SIGN UP NOW

If you would like to participate, please contact Rich, KC3MIO at: hamberger@ptd.net

Additional information can be found in the June newsletter. If you have any questions, email me; if you would like we could talk on the phone, too.

PARTICIPATION COUNTS!

Please remember that there is a throughout-the-year participation requirement to be eligible for the best prizes. It's easy to rack up enough points, even if you started late. See http://www.naqc-c.info/prize_drawing_18th_anniv.html for drawing details.



The 4SQRP Bayou Jumper, a modern Paraset

PRIZES!

We usually don't reveal the prize list ahead of time but we want to whet your appetite with just a little peek. Thanks to the generosity of the Four State QRP Group we have:

- One (1) Bayou Jumper Rev D
- Two (2) Crystal Spotters
- Two (2) EFHW - End fed antenna experimenter boards

Thanks to Ron - AG1P
4SQRP Volunteer Secretary/Treasurer

MORE DETAILS

For more information about our celebration, and to see summary reports from previous years, go to http://www.naqcc.info/main_n3a.html.

UPCOMING EVENTS

State	Times	IN	Out	Freqs	Links
Maryland & DC	1400Z, Aug 13 to 0400Z, Aug 14	Station Category & County	QRP ST	3.557, 7.045, 14.045, 21.045, 28.045, 50.095, 144.095	Rules
Hawaii	0400Z, Aug 27 to 0400Z, Aug 29	RST Multiplier	RST ST	1815 & 30-40 kHz up	Rules
Kansas	1400Z, Aug 27 to 0200Z, Aug 28 and 1400Z-2000Z, Aug 28	RST County ST	RST ST	40kHz up	Rules
Ohio	1600Z, Aug 27 to 0400Z, Aug 28	RST County	RST ST	1.815 & 45 kHz up	Rules
Colorado	1300Z, Sep 3 to 0400Z, Sep 4	Name County	Name ST	50kHz up	Rules
Tennessee	1800Z, Sep 4 to 0300Z, Sep 5	RST County	RST ST	1.815 & 40 kHz up	Rules

HOW TO PARTICIPATE

1. Work the QSO Parties. Rules differ slightly by state, so check those. Work at least two stations in each QSO Party.
2. Post a summary of your results for each QSO Party to the appropriate page on <https://www.3830scores.com> The links to the submittal forms are on the left side of the page in yellow.
3. Under "club" choose "other" and then type in NAQCC. If enough people do that we can get added to the pulldown menu. If you're already committed to another club, don't worry about it. It won't affect our friendly competition, but it's nice to get NAQCC some visibility.
4. Some QSO Parties lump CW together with digital or other modes. If that happens, send a note to QSO Party Challenge Manager Don VE3DQN

at don@hekman.net and let him know that you worked strictly CW, or if mixed, how many of your contacts were CW.

5. Check the NAQCC Newsletter each month to see how everyone is doing.

NOTES

Individual QSO Parties will do their own official scoring based on uploaded Cabrillo logs. We're just looking at the summary you post to 3830scores.

To participate, you must enter as a QRP station. You don't have to limit yourself to CW operation, but only those QSOs will count toward the NAQCC QSO Party Challenge.

Questions? Read Don VE3DQN's [November article](#) or contact him at: don@hekman.net



ANOTHER QRP ATU

BY DEJAN SA3BOW #6935

Snap! I suddenly saw the solution. It was so clear. As so often, it appeared just before I was about to fall asleep.

LET ME START FROM THE BEGINNING

I had my 5-watter on my radio corner operating table. I prefer outdoors operation but since I was tired of disassembling, packing, assembling yada yada yada, I got another radio for the shack and put the 5-watter in a case.

But all the wires, bits and bobbs still had to be orchestrated. Years passed and I thought of different clever ways to box all this stuff ready to go.

The sought after box never materialized. Nothing fit the bill. I was on the brink of taking the XYL's epoxy and stuff to build a box. Never happened. Then I stumbled over two old transceivers suspected to hold subminiature valves. They did. Lots of them.



In my nightly epiphany everything would fit perfectly. I usually see stuff floating mid air, slowly turning around. However, reality sometimes begs to differ. Putting the radio beside the old-timer radio... It did look doable.

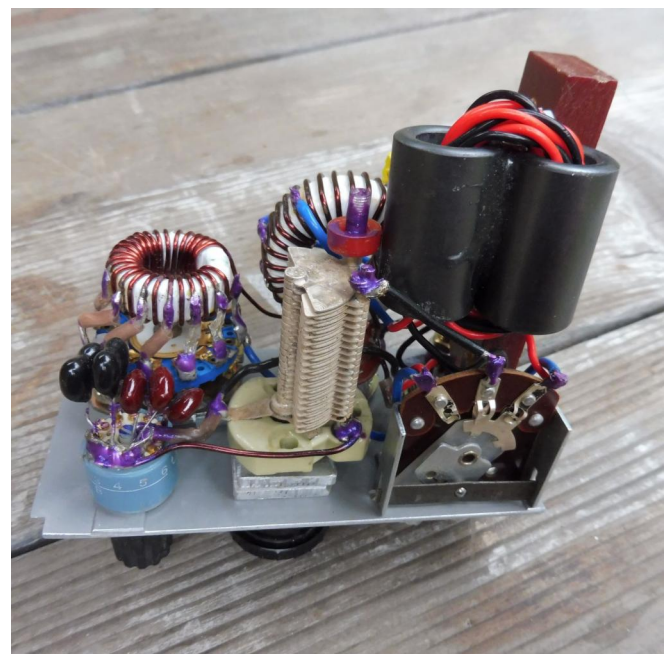
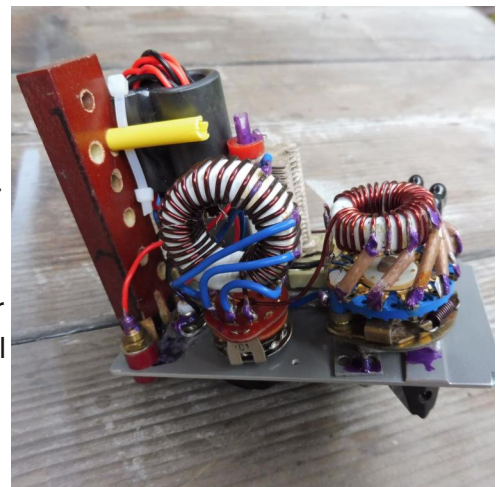
If I had the stuff for a small ATU and balun. If I had had the stuff I would have liked ... but with a shallow junk box I had to compromise.... Finally the main parts were found.

I settled for a series-parallel L-network, switchable to LsCp or CsLp with values guesstimated to permit 80-10 meter operation with the usual field antennas. Maybe even top band with an extension wire. A series-parallel L-network is a sound choice.

THE INNARDS

Two switched toroids in series not shortening unused turns, a variable capacitor and additional switched mica.

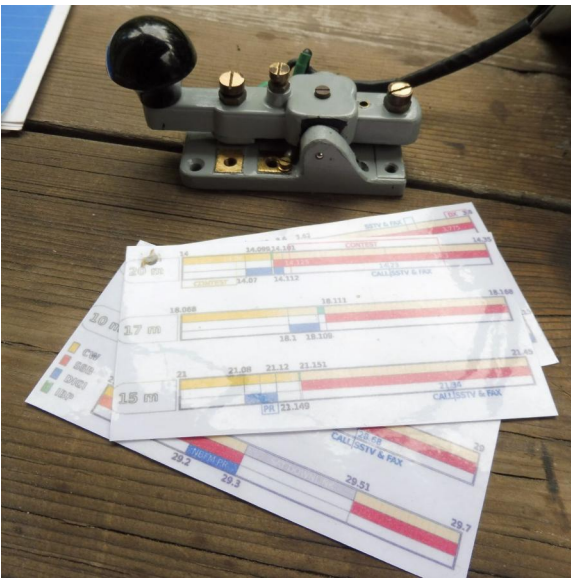
A three-position switch for LsCp, CsLp, or no C at all. The balun (teflon insulated silvered wire on NiZn ferrite tubes) finished it off.



Everything but the toroids are junk, scrap pieces or very second-hand stuff. No parts are optimized, wished for or specially acquired. For example, the T130-6 toroid (the bigger one) is way way larger than needed. It's little sister, a T106-6 is more like it as it can take coarse wire which made soldering tabs easier and lessens losses. The variable capacitor was the only one that fit so it would have to do.

I never liked the rubbery coil cord for the mic so I scrapped that. A CAT-cable works and does not fight you.

No matter how I worked over the Czech key in the first photo it was too big. A badly broken up WW2 key was repaired, given metal bearings and a slap of paint.



To reduce the risk of overheating, lots of holes were drilled in the radio's own enclosure. The light colour was an old trick to keep it cooler in the sun. I never understood the allure of painting radios black.

The top and bottom lids weighed 308 gram. Holes reduced it to measly 302 gram. 10.65 oz to you. There is weight to shave off there!

Last year or so I found out that the sound improves by stuffing the speaker in the battery compartment. Can't figure out why.



So that's all folks, another DIY rant complete, making something out of nothing!



NAQCC SPRINTS

AUGUST SPRINT

Our Sprint this month will be on Wednesday, August 10, 0030-0230 Z. That's the evening of Tuesday, August 9th in North America. Complete information at <http://naqcc.info/sprint/sprint202208.html>.

RULES

Complete sprint rules and instructions on how to submit your log can be found at http://naqcc.info/sprint_rules.html. On that page you will also find information about the different computer loggers that are supported for our sprints. The membership data files for those supported loggers can be downloaded at <http://naqcc.info/contests.html>. **Please be sure to always get the latest membership data for your logger about a day before the Sprint.** A complete schedule for our upcoming sprints can be found at http://naqcc.info/sprint_sked.html.

JULY SPRINT RESULTS:

Complete Sprint results, including all of the soapbox comments, can be found at <http://www.naqcc.info/sprint/sprint202207.html>. High scores can be seen in the tables on the next page.

We would especially like to welcome our first-time regular sprint loggers and hope that they will return to participate often: N1BRI & W9SSN

July Sprint				
	Current Month	Previous Month	All-Time Record	Record Date
Logs	97	99	217	4/17
Participants	139	136	269	2/13
Total QSOs	1275	1356	3154	4/17
Hour 1 QSOs	710	807	1704	4/17
Hour 2 QSOs	565	549	1450	4/17
20m QSOs	268	400	1232	8/13
40m QSOs	995	893	2203	4/17
80m QSOs	12	63	1417	2/13
Avg QSOs/Station	13.1	13.7	19.3	9/11

SWA STRAIGHT KEY CATEGORY			
Division	1st	2nd	3rd
W1	AC1KV	WB1GYZ	KB1CKT
W2	WA2NYY	W2SH	W2JEK
W3	KC3MIO	K3JZD	AK3X
W4	KY4ID	KC5F	N2AWE
W5	N5GW	KE5YUM	KG5HCF
W6	K6FA	W6IRA	K6GPB
W7	-	-	-
W8	W8GG	NF8M	K8KUF
W9	WB9HFK	K9QEW	K9NUD
W0	AA5LH	N8LA	NN0SS
Canada	VE3IIM	VE2KZW	-
DX	-	-	-

SWA BUG CATEGORY			
Division	1st	2nd	3rd
W1	W1ND	-	-
W2	-	-	-
W3	K3RLL	NN3E	K3WWP
W4	-	-	-
W5	AA5AD	K5IX	-
W6	-	-	-
W7	-	-	-
W8	K8NGW	-	-
W9	K9DRP	KD9EBS	-
W0	KD0V	WU0A	-
Canada	VE3HUR	-	-
DX	-	-	-

SWA KEYSER/KEYBOARD CATEGORY			
Division	1st	2nd	3rd
W1	KB1M	KE1AK	-
W2	K2OID	WA1GWH	N2JJF
W3	KC3RN	AC5XK	-
W4	K4BAI	N4MJ	K4KBL
W5	KA6J	-	-
W6	KI6M	W9SSN	-
W7	KF7Z	-	-
W8	WI8J	WA8SAN	-
W9	NN9K	N8HWV	AB9BZ
W0	K9OSC	KC2MJT	-
Canada	VE3DQN VE3GNU (TIE)	-	-
DX	DK1VD	TA/N7QR	-

GAIN CATEGORY			
KEY	1st	2nd	3rd
SK	NQ2W	-	-
BUG	-	-	-
K/K	-	-	-

FIRST-TIME ENTRANT HIGH SCORE			
Key Type	1st	2nd	3rd
SK	N1BRI	-	-
BUG	-	-	-
K/K	W9SSN	-	-
PRIZE DRAWING WINNER			
K4BAI			

SPRINT HONOR ROLL

We honor the following members for their outstanding participation over the years in our regular sprints. Exact counts can be seen at http://naqcc.info/sprint_dates.html.

Number of Sprints	Members
50+	NQ2W KF7WNS WB1GYZ KC7DM AA0W KJ4R KB0ETU N7QR K2YGM AA7CU NN0SS VE3GNU WD4OHD N8QY WY3H K4KBL K6CSL W5UAA WK6L KC2EGL K2HT KE9DR AB8FJ NN9K K4ORD K1IX K5GQ N1JI W4HH KB4QQJ KB9ILT
75+	N4MJ N8LA K4NVJ KQ1P KD3CA K9EYT VE3FUJ WD0K K9OSC N8BB WB4OMM KB1M N2CN K6MGO WA1GWH NF5U WA2FBN VE3DQN N8APO WI5H WB9HFK
100+	N0TA K1IEE K4KRW W4DUK AA9L AK3X KD2MX NO2D N5GW WB8ENE KA9FQG NA4O KN1H
125+	K2CWM K4JPN KD0V N4FI N2ESE KE5YUM WX4RM WA8SAN WG8Y
150+	W9CC N8XMS K4BAI NF8M K3RLL KU4A
175+	W2JEK W2SH W8GG
200+	K3WWP KA2KGP

SPRINT SOAPBOX SAMPLER

KC5F - Both 20 and 40 were nice tonight, but nothing on 80. The biggest problem was sticking to the desk and key with 98-99% humidity. Sometimes it might be nice to have air conditioning! Thanks, all, for the fun.

W1ND - Very slow start on 20. Burned 30 minutes for 1 or 2 contacts, thinking it might not go so well, 40 was slow start too, then the gates opened. Another fun one, this time from my home QTH. Any sprint I get Steve, KC5F in the logs has to be a good one.

WB4OMM - Brand new antenna installed here, an off center fed dipole covering 160m to 6m with an LDG tuner. Worked fabulous tonight! Almost didn't make it to Sprint, thunderstorms right up to 9:30 PM local. None now, but coming back.....glad I got a few! 72 to all, see you next month!!! Steve WB4OMM

WB1GYZ - Congrats to Brian N1BRI on his first Sprint. I think he'll be a regular here. He's practically my neighbor. Thanks to all for a fun evening.

N1BRI - My first sprint -- what a blast!!!

KE1AK - Operating from my camp site, I managed to muster 6 Q's while tending the fire and swatting mosquitoes. Used my Venus SW-3C with ebay 3d printed key and end fed antenna just high enough not to hit my head on.

VE3IIM - Only had one hour, due to T-Storms. Nothing here on 20. QCX and old navy key=fun!



“MORSLE” DAILY CODE GAME

If you've missed out on the Wordle craze, or you've already done today's puzzle and are looking for a real challenge, try Morsle! <https://morsle.fun>

Every day there's a new 5-letter word. You listen at 40wpm with wide letter spacing and type in the letters you heard. Correct ones will turn green. You get three turns at each speed and then it slows down by 5WPM.

EASIER THAN IT SOUNDS

You'll do better than you think. One word at high speed is a lot easier when followed by time to think instead of a bunch of other words. Having one or two letters correct helps anchor your next listen.

HARD MODE & PRACTICE

There's also a hard mode that does away with the Farnsworth spacing for an extra challenge.

Once you've done the word of the day (or before, as a warm-up), you can switch to practice mode and test yourself on unlimited words or callsigns.



OPERATING TIP: ‘DEAD’ BANDS BY JOHN K3WWP #002

There are two reasons a band sounds ‘dead’:

1. Conditions in the ionosphere, i.e. propagation does not permit communication at the time.
2. Everyone is listening on a band, but no one is transmitting.

Number 2 is *much* more likely to be the reason. Even if #1 is true, there are still other means of getting your signal from here to there. There is always ground-wave coverage which allows

communication between stations in a certain geographical area, the size of which depends on frequency, local terrain, ham population in the area, and other lesser important factors.

The bottom line of this tip is: If you tune across a band and don't hear anything, try calling CQ for a few minutes or more. You may be surprised what will happen. I've often gotten answers to my CQs on a ‘dead’ band and had some good solid rag chews or worked some exotic DX.

HOME BREW ESSENCE

BY TOM - VE4AKI #8145

I have been a ham for 38 years, mostly operating QRP CW on HF and 6 Meters.

My passion has been telegraph keys. I have built up a collection of straight keys but with declining years I have been trying to divest myself of those I seldom use.

I usually use a keyer and paddle and have a few commercially made paddles such as Vibroplex and Brown Brothers. I have taken to homebrewing paddles the last few years and have constructed about 12 both single-lever and dual-lever.

RECYCLING PLASTIC

I do not have the kind of tools or skills to fabricate paddles from metal so I use mostly hand tools. The last few paddles I have made are from plastic recycled from other objects. The two shown in this article are examples.

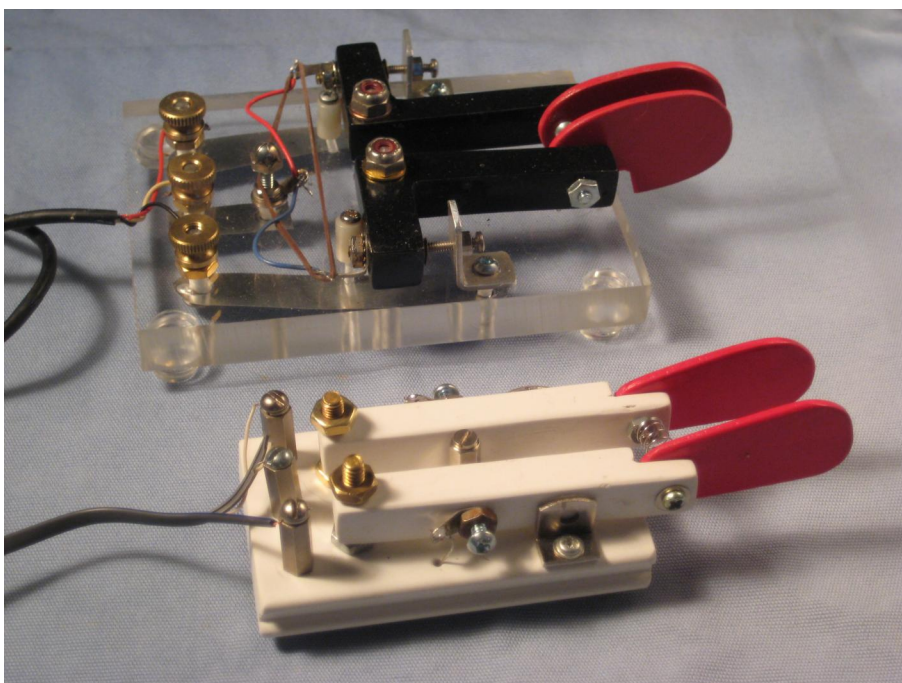
THE WINDOW BLIND KEY

The smaller white paddle is made from plastic salvaged from a window blind. I do not know what kind of plastic it is, probably PVC. It is easy to work with hand tools, can be sanded or painted, and can be tapped for threads. Hardware is whatever I can find in my junkbox.

ACRYLIC & PVC

The larger paddle is made on a base of 1/2" thick acrylic and the levers are made of PVC. Hardware is also from the junkbox. Spring tension is provided by an elastic band, easily adjusted and readily available.

Both paddles are quite usable with a good "feel." They are not as precise as my Vibroplex or Brown Brothers but are satisfying to use because they are my own design made with my own hands. This to me is the essence of homebrewing.

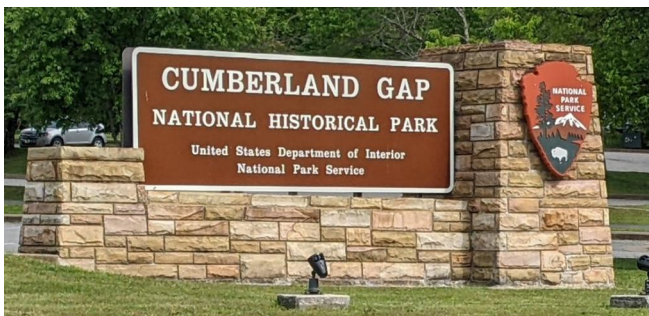


QSO PARTY & POTA ACTIVATION AT CUMBERLAND GAP

BY BRENT WT4U #9019

A few weeks ago I mentioned to Don VE3DQN that bumping my QSO Party Challenge award from gold to platinum looked out of reach, even with my home Tennessee event coming up. He had the great idea of running up to Kentucky for their event to do a bit of portable operating.

I started searching southeast Kentucky for a spot on a county border (so contacts would count double), on public land, close to a road, and not in the bottom of a valley. The only candidates were a bit far, and miles up the sort of Appalachian dirt road it's best not to wander without an introduction.



CUMBERLAND GAP

Giving up on the two-county idea, the next best thing was to double up with a Parks on the Air (POTA) activation in Cumberland Gap National Historic Park, right where Tennessee, Kentucky, and Virginia meet. My intention was to go over the border into Kentucky, but instead I went *under* it! From the tunnel, there was a twisty 4-mile road, and a short walk, up to Pinnacle Overlook.

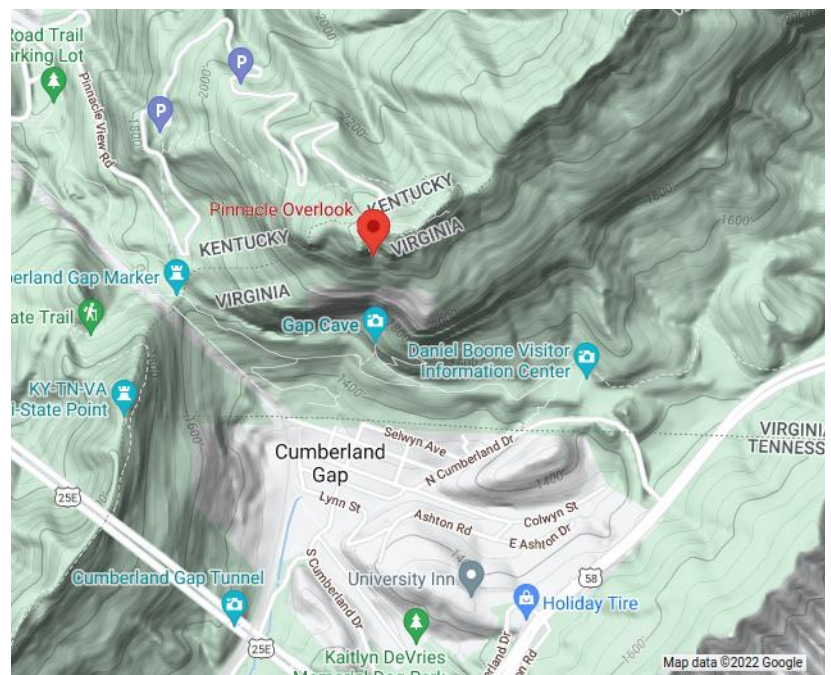
It's a heck of a view, but it's on the wrong side of the Kentucky/Virginia line, so back to the parking lot. I set up in the grass under some trees in a pleasant little corner near my car.

THE 'SAME' ANTENNA

The antenna was the same homebrew 40m EFHW I've used for outings before, but I replaced the throw line with some smaller, slicker, stealthier 1.75mm "Lash-It!" cord, replaced the 18AWG wire with some 24AWG silicone, added a 100pf cap to the transformer, and made a 3D-printed bracket to mount the BNC connector and the transformer so the soldered connection wouldn't pull apart again. I kept the (over-sized) transformer and BNC connector, and didn't get around to replacing the 6' counterpoise. Once I swap those out I'll have George Washington's original EFHW.

SETTING UP

I threw the line over a tree (and down into a ravine), and pulled my throw weight up through the bushes and tied off under the trees. Then went back to the business end and realized that I'd be sitting in the sun. Doh! Pulled the antenna back



through, untied, and attached it to the other end to pull it over again. Much better!

The inverted-V ended up bending around the corner about 30° (top view) while I understand they're supposed to be perfectly straight. Straight would have meant one end was way down the hill through a mess of poison ivy.

SWR ISSUES

Don't know if the bend was the cause, but with the same length that worked fine testing in a yard tree that morning I couldn't get the SWR on 20m below 3:1, though 40m was fine. I worked 40m for an hour and then got up to stretch my legs and shortened the antenna until the 20m band was in the 2:1 range, but that's as good as it got. I didn't get great 20m SWR on the previous iteration either. Though I'm not worried about loss in 8" of feedline, I'm not sure how much abuse the MTR-4B's finals can handle. More experiments needed.

Oops!

I had a funny issue with the antenna analyzer that made all that harder to sort out. It was working fine on 40m, but the 20m curve was all jagged. That normally means a bad connection, but I'm looking at 8" of new BNC coax jumper and strain-relieved wires soldered straight to the transformer. It took me way too long to notice that the PL-259 side of the BNC adapter on the RigExpert had worked loose!



Kentucky QSO Party on this side only

Taking a companion always worked for my portable ops mentor, Joe Everhart N2CX #4707 (SK) & his friend Ratso, so I invited Counterpoise, the Propagational Support Possum (PSP). Here he is keeping an eye on that suspect transformer.



LAP SHACK

My improved battle station consisted of the trusty *LNR Precision MTR-4B*, 3 Li-Ion 18650s, a velcroed-on in-line volume control, my homebrew combo key, a notebook, & a pencil.

The battery pack has way more capacity than I'd use in a single outing, but it starts at 12.3V and works down to 12.1V, so pretty much in the MTR-4B's sweet spot. I wired a charge-controller board to the bottom of it and glued up a cardboard enclosure to avoid shorting it to something. A 3D-printed housing is in its future.

From my previous outing, I knew that the ergonomics of sticking the magnetic key on the clipboard clip were pretty bad, so I went out to the workshop that morning and cut a piece of steel as a base. That worked so much better that I ended not using the keyer memory except for CQs, and tapped the rest out by hand.



Homebrew 40m EFHW and
75' of 1.75mm throw line



The much better view on the Virginia side

RESULTS

My goal was 60 QSOs. I logged 69, including five POTA park-to-park contacts, and reeled in stations from as far away as Alaska, Germany, and the Slovak Republic. Best of all, I managed to work Don, whose idea it was to send me on this adventure.

With 34 multipliers, my three hours on the mountain (half spent on air) were good enough for a 2nd place finish in the Kentucky contest in "Fixed QRP." I was tickled to see that six of the 14 ops in that category, plus the sole "Club QRP" entrant, identified themselves as NAQCC members. We're taking over!

LESSONS LEARNED

- I brought lots of extra "just in case" gear and needed none of it.
- Scope out the shady spot before setting up your antenna!
- Doubling up with a POTA activation (my very first!) worked out really well. I had pre-spotted myself in the scheduler, so within a minute of my first CQ the *Reverse Beacon Network* had picked me up, reported me to the *POTA spotter* and I started getting calls from POTA hunters.
- Check *all* of the connections!



NAQCC CHALLENGE

BY GARY K1YAN #2365

THIS MONTH'S LETTER CHALLENGE: MEDICAL PRODUCT SAFETY

We all want medical products, like injections and implants, to be safe to use. Being free of bacteria is a major part of a safe product. Just sterilize the product with heat or radiation or ultraviolet light and we are good to go.

DEAD BACTERIA

Well, not necessarily. Bacteria can release harmful toxins when they are both alive and dead. They release exotoxins when alive but can also release endotoxins from their cell wall after they die. This means that being totally safe requires testing to insure that no bacteria, dead or alive, are present. So, how is this done?

ANIMAL TESTING

For a long time rabbits were exposed to the product under test and their response monitored. A bad response indicated a contaminated product. *Limulus Polyphemus*, the Atlantic horseshoe crab, an ancient creature that dates back around 450 million years, revolutionized the testing process. Research on its immune system, helped to devise a new and better way to test.

The crab has an immune system that works differently from ours. It has cells that detect bacteria and prompt the blood cells to surround the invader, coagulate and render it harmless. By extracting a chemical from horseshoe crab blood and using it in product testing, this same coagulation can be made to happen if bacteria are present. The reac-



tion is very fast occurring in a matter of minutes. Seeing the sample coagulate is a positive sign of bacterial contamination.

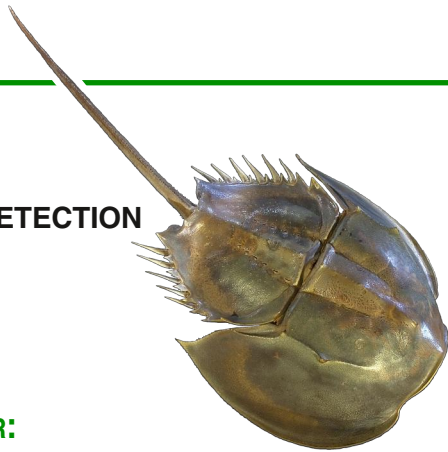
CRAB ROUNDUP AND RELEASE

Every year thousands of horse shoe crabs are captured and some of their blue blood is harvested to be used in medical product testing. After the blood draw, the crabs are returned to the ocean where most will recover. A synthetic product to use in this type of test exists, but approval and acceptance are slow in coming and the horseshoe crab is still used in product safety testing.



WORDS

- BACTERIA DETECTION
- EXOTOXIN
- ENDOTOXIN
- LIMULUS POLYPHEMUS
- 450 MILLION YEARS OLD
- ANNUAL BLOOD DRAWS




CHALLENGE TRACKER:

0	4	5	A	B	C	D	E	H	I	L	M	N	O	P	R	S	T	U	W	X	Y

X Every time you work a new station this month, mark off the lowest box under each letter of the call to track your progress and see what letters you still need. You can download a printable version of this month's tracker at: http://naqcc.info/challenge_tracker.pdf



 Entering the Challenges earns you participation points so you're eligible for the best prizes in the annual anniversary drawings.

SUBMITTING YOUR ENTRY

The easiest way is to use the great tool hosted by Robby WB5RVZ. Create an account, choose this month's challenge, and paste in all the eligible calls you worked. It will apply the letters, tell you what you're missing, and fill out the email for you. <http://naqcclatters.azurewebsites.net/>

If you want to do it by hand, or got some but not all of the words and want to pick up a participation point, send an email to

Subject: (your call) NAQCC (month year) Challenge

Body: your call:
word1 - call1 call2 call3
word2 - call1 call2 call3



RULES:

Just make ALL the words from calls of stations you work subject to the General Challenge Rules. (Any spaces in the phrases should be ignored. For example the challenge phrase "INVERTED V ANTENNA" should be treated as if it is the single word "INVERTEDVANTENNA.")

Each letter in a callsign you work during the month can be used twice to complete the challenge words. Complete rules, information, and a helpful tutorial on how to organize your work for an alphabet challenge along with detailed general rules and submission instructions can be found at http://naqcc.info/challenges_rules.html

NEXT MONTH'S CHALLENGE

Watch out for Spanish pyramid schemes in September's Castell Building letter challenge.

<http://naqcc.info/challenges/challenges202209.html>

LAST MONTH'S CHALLENGES

The deadline for submissions for the Trunked Radio letter challenge is still a few days away. You can see what has been submitted so far at <http://www.naqcc.info/challenges/challenges202207.html> and final results will be posted on that page shortly after the 10th of the month.

CHALLENGE HONOR ROLL

We honor the following members for their outstanding participation over the years in our monthly challenges. Exact counts can be seen at http://naqcc.info/challenges_schedule.html.

Number of Challenges	Members
25+	KU4A N1JI K9OSC KD0V KA5PVB N4OW KB1M WY3H WY7N AC2C VE3HUR DK1VD KI4IO N1LU KD2MX
50+	PA9CW VE3FUJ W15H NF1U WA2FBN AK3X W3IQ KJ4R VE3DQN G3JFS AH6AX N9SE WB4OMM
75+	PA0XAW
100+	K1IEE
125+	K1YAN
150+	W2JEK K3WWP N8XMS

CHALLENGE SOAPBOX SAMPLER

ON7DQ - Great fun as always, but in the end I needed just one more 'E'. Then I could catch SOTA friend Heinz OE5EEP/P, that gave me way more 'E's than I really needed, hi. Anyway, mission accomplished. 73 Luc ON7DQ

SN9MT - this is my third attempt to do the alpha challenge and I finally did it. It was great fun and a great joy for me that I made it. Thanks for having fun and see you next month. 73! Mirek SN9MT

W4KAC - My second challenge. Great fun. Thanks for putting it together. Ken, W4KAC

AB9BZ - Thanks for quite a challenge this month, 73 ab9bzW1BLU: Solar conditions made for some challenging conditions for sure! TU all.

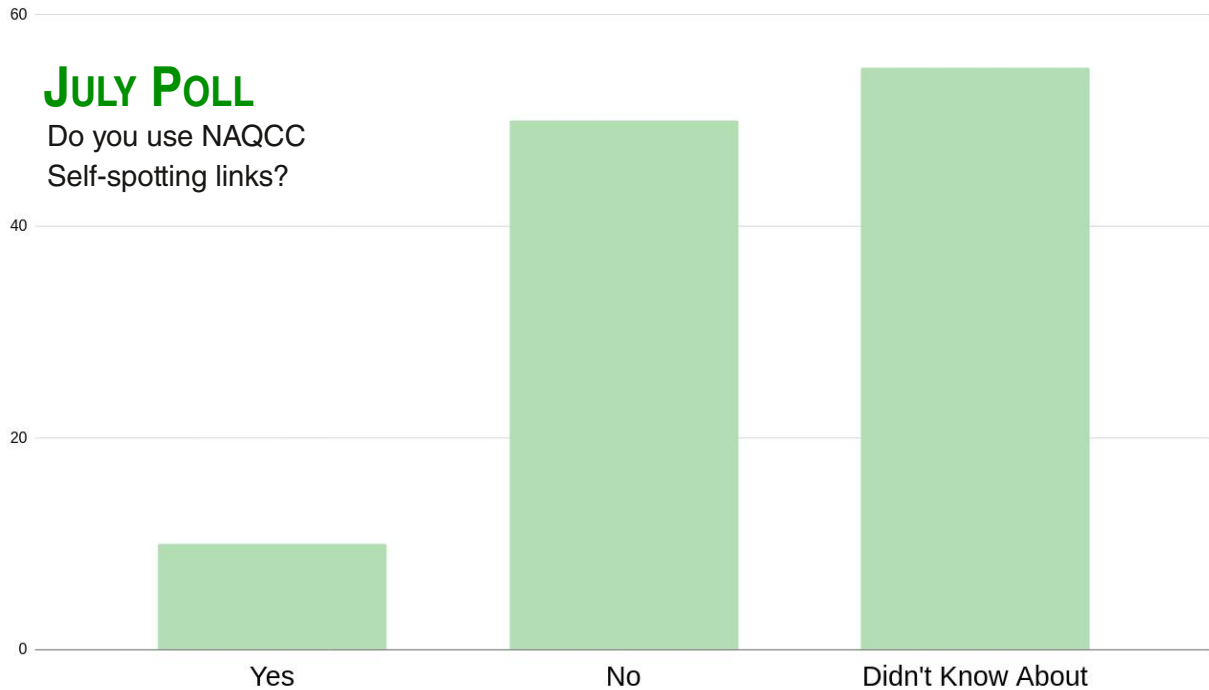
WT4U - Came down to S, U, and finally a Y. You just never know. The final letter was filled in by a regular POTA op who's usually in my log way earlier in the month. Always a bit sad when I get done with plenty of month left until next time.



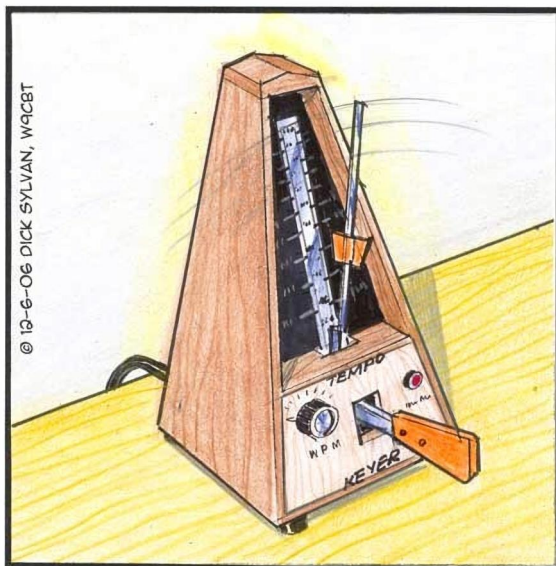
MEMBER POLL

AUGUST POLL

What new NAQCC activities would you be interested in? Let us know at http://naqcc.info/poll_new.html



HAM QUIPS DICK SYLVAN, W9CBT



MAKING MORSE'S MUSIC

Dick Sylvan, W9CBT, #2062, has been a QRP/CW operator for a long time. He is also a very accomplished ham radio cartoonist and his work has appeared previously in the K9YA Telegraph newsletter. His book "HI HI - A Collection of Ham Radio Cartoons" is available at www.lulu.com.

JUST CALL “CQ”

BY STEVE K9NUD #10575

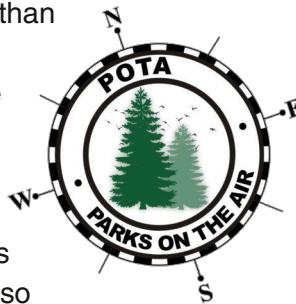
Interest in Morse code has increased in recent years due in large part to the popularity of Parks On The Air (POTA), World-Wide Flora Fauna (WWFF), and Summits On The Air (SOTA). Many newcomer activators soon learn that small and modest stations translate to faster activations.



These lean stations nearly always include QRP radios with battery power, along with meager wire antennas such as the End Fed Half Wave (EFHW), dipoles, trap dipoles, and so on.

MAKING THE SWITCH FROM SSB TO CW

Many of the park “activators” start out with SSB. It’s not too hard to get a pileup and complete an activation with 50-100 watts, but the QRP SSB ops quickly learn that it’ll take a little more work to complete the activation. More than a few have gotten quite frustrated. The subsequent advice is to switch to CW. Everyone knows that the original digital mode is superior to voice modes in weak-signal work. As an added benefit, activators also learn the magic of automatic spotting on the RBN, dramatically improving the success of their activations.



This trend has followed through to the respective hunter communities as well. I personally recommitted to CW toward the end of 2020 after decades of neglect for this reason. With lots of hard work and the help of CW Ops and Morsecode Ninja, I obtained enough skill to start hunting POTA and SOTA ops via CW. Later, I started activating parks with CW, and I know many others who tell the same tale.

INFLUX OF BEGINNERS

I have advised CW Ops beginner classes, and fully half my students were there because of POTA and SOTA. For those of us who promote Morse code and QRP operations, the stars could not align any better than they have.

Hunting parks and summits is fun, and I pursue it daily. Some days a park activator is my sole CW contact. For those of us who are trying to maintain a cadence of at least one CW (or one QRP CW) contact a day, POTA makes the task a lot easier.



MORE WAYS TO PLAY

But all of us know that CW is far more than “UR 599 IL BK.” NAQCC ups the ante a bit with the monthly sprints, where the exchange involves a member number, not to mention the added challenge of QRP (or QRPp). The same is true with the Straight Key Century Club (SKCC), Slow Speed Trials (SST), Fox Hunts, Flying Pigs, and the plethora of Special Interest Groups all doing their part to keep us pounding the brass.



But there is more to this aspect of the hobby.

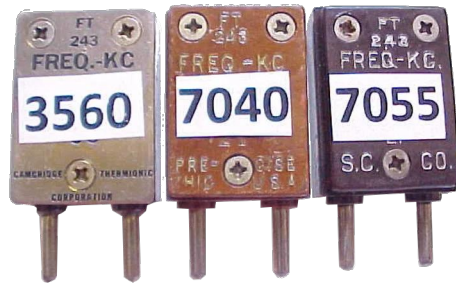
JUST CALL “CQ”

The answer is this: “Just call CQ.” Many of the hunters and chasers never call CQ, and their enjoyment of the hobby is diminished as a result.

THE NOVICE EXPERIENCE

I was reminded of this during the recent restoration of a Drake 2-C/2-NT novice station from the mid-60's. Back then, the original owner would be armed with a handful of crystals. Unless someone happened to call CQ on one of those frequencies, they would have no choice but to call CQ. Besides, the aspiring novice would only have one year to upgrade to General, so the pressure was real. Make lots of contacts, improve your skills, get rid of that "N" in the call sign, and get a microphone and that coveted VFO. That was the ladder of success, and everyone did it.

At first, calling CQ was terrifying! Many of us can relate the story of our first CW QSO—forgetting the "script," copying almost nothing, fumbling through the contact, and finally exhaling when it ended. But as we all progressed, we learned that every CQ was an invitation to converse with complete strangers. You had no control over who answered. They might be down the



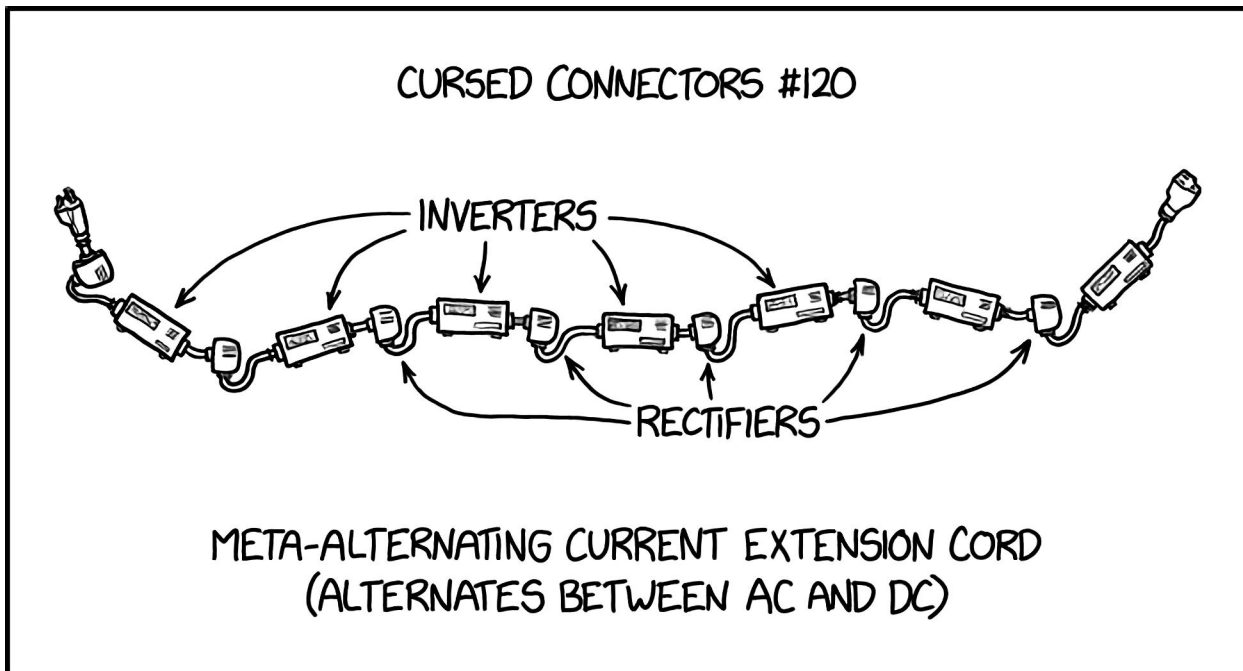
street or across the ocean. They may be a novice or maybe someone in their 80's. Heck, they may even be a YL! In every case, that CQ could open the door to an interesting exchange and maybe even a lifelong friendship.

REVIVING THE LOST ART OF THE RAG CHEW

Sadly, even the influx of energetic portable operators and chasers has not made a noticeable impact on conversational CW. I think it behooves us all to promote the next level of Morse code operations. It's a little too easy to check the SKCC, POTA, SOTA, and WWFF spotters. We see what we want, pounce on it, and move on. What would the bands be like if more hams sent CQ? How many

new CW ops would hone new and improved skills? How many friendships would be forged from a garden-variety QSO? Lots, I hope!

Nothing happens until someone calls CQ. Make something happen!



NAQCC NETS

We have a number of nets (QRS = slow speed, QRQ = higher speed) designed to help people build up their CW operating skills. Complete information about these nets can be found at http://naqcc.info/cw_nets.html. Questions should be directed to Net Manager Mark, W8EWH.

NAQCC Net Schedule

Net	Local Time	UTC	Freq +/-	Primary NCS
Wyoming Daily QRS 80 Meter Net (WY80)	Daily 6:30 AM MDT	Daily 1230 Z	3565 kHz	Steve KE7UUJ (WY)
East Texas QRS Net (ETN)	Monday 7pm CDT	Tuesday 0000 Z	7066 kHz Summer 3566 kHz Winter	Allen KA5TJS (TX)
Midwest QRS Net (MWN)	Monday 7:30 CDT	Tuesday 0030 Z	7031 kHz	Bob W0CC (KS)
Pacific Northwest 80m QRS Net (PNW80)	Thursday 7 PM PDT	Friday 0200 Z	3556.5 kHz	Stewart KE7LKW (WA)

Note: On the rare occasions that there is a conflict between one of our scheduled nets and one of our regular sprints, the sprint will take precedence.

NET CONTROL STATION REPORTS

NAQCC MIDWEST QRS NET (MWN)

Monday evenings 7:30 PM CDT, which is Tuesday 0030 UTC, on 7031 kHz +/-
Main NCS - Bob W0CC (Kansas) — Assisted by Dave AB9BZ

Jul 04 – QNI (3) W0CC, KE8PEG (via relay courtesy Dave, AB9BZ), KD5ZCQ
John, KD5ZCQ, did a GREAT Job fighting all of the QRN and being persistent! Again, THANKS to Dave, AB9BZ, for assistance with the relay for KE8PEG!

Jul 11 – No Report (Working)

Jul 18 – QNI (2) W0CC, KC9TYA

Mark did a great job hanging in there to get through! Dave, AB9BZ, did not hear anyone else and I could not copy Dave.

Jul 25 – QNI (3) W0CC, AB9BZ, KD5ZCQ

Both Dave and John did GREAT JOBS pulling out the signal!

NAQCC WYOMING DAILY QRS 80 METER NET (WY80)

Daily at 6:30 AM MDT which is 12:30 UTC, on 3565 kHz +/-

Main NCS - Steve KE7UUJ (Wyoming)

(Listing of stations checking in during the week. # after call = number of check-ins that week.)

No Nets this Month

NAQCC EAST TEXAS QRS NET (ETN)

Monday evenings 7PM CDT, which is Tuesday 0000 UTC,

on 7066 kHz +/- (Summer) or 3566 kHz +/- (Winter)

Main NCS - Allen KA5TJS (Texas)

Jul 05 – No Net (Holiday)

Jul 12 – QNI (4) NCS KA5TJS, KE5YUM, N4NN, KE5YGA

Conditions were pretty good but had to move up .5kc due to ongoing QSO just below the net freq. Signals from AR and GA 599 peaks.

Jul 19 – QNI (4) NCS KA5TJS, KE5YUM, N4NN, KE5YGA

Good signals on the net with no QRM for a change here. All report hot WX except for Allen in GA with 85 deg. Over 100 in AR and TX.

Jul 26 – QNI (3) NCS KA5TJS, KE5YUM, N4NN

Pretty good signals tonight. YUM was QRP and 569 and NN was 589 and 30 watts due to poor propagation and QRM. A digital station fired up rite on top of use thru much of his comments and he had to repeat a bunch. The LID did QSY somewhere else. Andy YGA has concert commitments for a few weeks and will not be checking in.

NAQCC PACIFIC NORTHWEST QRS 80 METER NET (PNW80)

Thursday evenings 7:00 PM PDT, which is Friday 0200 UTC on 3556.5 kHz +/-

Main NCS - Stewart KE7LKW (Washington State)

Jul 01 – QNI (5) NCS WB7WHG, N7TB, KE7LKW/P, W7ANM, WB4SPB

Jul 08 – QNI (7) NCS KE7LKW, KI7SJE, AD7BP, WB4SPB, N7TB, W7ANM, K7JUV

Jul 15 – QNI (7) NCS K7JUV, KE7LKW, KI7SJE, AD7BP, WB4SPB, WB7WHG, W7ANM

Jul 22 – QNI (2) NCS KE7LKW, AD7BP

Jul 29 – QNI (7) NCS KE7LKW, WB7WHG, KI7SJE, WB4SPB, AD7BP, W7ANM, N7WPO



NAQCC AWARDS

AUGUST FEATURED AWARD: DXCC

It's just the classic DXCC award with some modifications for QRP/CW.

Contact as many countries as possible within the time frame using QRP, CW, and simple wire antennas.

- A - 100 countries.
- B - 100 countries 2X QRP
- C - 25, 50, 75, 100 countries QRPp
- D - Mobile 100 countries

Equipment:

You:

Power:

A,B, D - QRP

C - QRPp

Antenna:

A,B,C, D - Simple Wire Antennas by NAQCC standards

Ham you work:

Power:

A,C, D - Any

B - QRP

Antenna:

A,B,C, D - Any

QSOs:

Rag chew or contest QSOs are both acceptable.

Complete details on this award can be found at http://www.naqcc.info/awards_dxccwa.html.

RECENTLY ISSUED AWARDS:

30-30 AWARD - ONE MONTH

Nr	Call	Months	Date	
0062	PA9CW	Jun 2022	07/21/22	all DX Contacts
0063	PA9CW	Jul 2022	07/21/22	all DX Contacts

30-30 AWARD - THREE MONTHS

Nr	Call	Months	Date
0017	PA9CW	May, Jun, Jul 2022	07/27/22

WAS - 50 STATES

Nr	Call	Date
0038	W9SAU	07/21/22



Awards earn you participation points so you're eligible for the best prizes in the annual anniversary drawings.



NAQCC CHAPTERS

The North American QRP CW Club currently has seven local chapters - Western Pennsylvania, West Florida, Illowa, Downeast Maine, Long Island, Florida, and Green Swamp WCF—but we would be more than happy to expand on that list. Chapters are more or less independent local gatherings organized by NAQCC members in a geographical area and subject to a list of guidelines from the NAQCC. They provide opportunities to have fun and to promote our parallel passions of QRP and CW. If you are interested in forming a local chapter please contact Club President Steve WB4OMM.

If your chapter is planning a portable operation activity and would like to have it promoted on the club email list or in the newsletter, send an email with the subject “NAQCC Portable Operation” and with the exact wording of the announcement to Steve, at the email address listed on the last page about a week before the operation. Please be sure to include the UTC time for the event and not just the local time.

A report about your chapter activity should appear here. Please send them to KD2MX or N8XMS at the email addresses listed on the last page.

NAQCC chapters located in the United States are welcome to use the NAQCC Club call, N3AQC for their special operations. Please contact call sign trustee Please contact call sign trustee, Club VP John KK4ITX, to schedule the use of N3AQC.

NAQCC WEST FLORIDA CHAPTER



Items in this section are from the West Florida Chapter unless otherwise credited. Questions and comments should go to Ron, N9EE.

The chapter's web site is

<https://www.facebook.com/groups/967110089994401/>.

BRASHER PARK JULY 16, 2022

Arrived at the park at 0845 hrs, moved into the main larger 2 table shelter.

Attending:

Ron, N9EE

Dan, AB4DN

Frank, KK4YDF

Jeff, N0GQV

Using my portable 20ft flag pole attached to the chain link fence around the kids play ground put

up my KM4ACK 65 ft long end fed wire antenna. Dan, AB4DN put up his 24 ft MFJ pole attached to the chain link fence and a wire dipole made from reel wire units allowing him to make any length he needed.

I set up my IC705 with T1 Tuner, Bioenno 9Ahr battery and keyer paddle.

Dan setup his FT891 with MFJ auto tuner and a LiFePO4 19Ahr battery I brought for him to use. This is a first time QRP event for Dan and he wanted to see how the setup would work.

Dan had a most interesting dipole antenna, 2 reels of wire in a tape measure type housings, instead of tape measure it was just wire. One pulled out the wire for each side of the dipole for whatever frequency one wanted.

Jeff, N0GQV had a small 40m CW QRP rig he built from a kit, but did not operate.

We started operating on 20m and the band was not so good, some signals, but all rather weak, 449/S-4 at best. 40m was dead. 20m did get more stations, but most all were weak. Only about half I called responded from my QRP rig.

LOGS:

Ron, N9EE with IC705, T1 tuner and 65 ft End Fed wire

1001	NJ8L	559/339	14.053	Vern, OH
1008	K5RIX	559/429	28.020	Ric, TX, only station seen on 10m
1124	AC4SG	559/559	14.029	Larry, GA
1128	KZ4L	549/549	14.026	Sam, TN was QRP
1139	NY4S	559/599	14.063	KY

Dan, AB4DN with FT891 and random dipole

1045	AE4AN	579/559	14.0555
------	-------	---------	---------

Dan brought hamburgers, we fired up the grill and had a good lunch. Tim, WD8MVU had purchased a new TX500 QRP rig, but due to another last minute commitment he could not attend. I was looking forward to checking out the TX500. Maybe next time.

Pack up all left the site around 1215 hrs.



Dan's FT891 case



Dan AB4DN with his FT891 & LDG tuner & straight key



65ft End Fed Wire Antenna on 20 ft portable flag pole



Dan's dipole on MFJ push up pole



Ron N9EE's IC705 and T1 tuner setup

NAQCC LONG ISLAND CHAPTER



Items in this section are from the Long Island Chapter unless otherwise credited.

Questions and comments should go to Howard, WB2UZE.

From Dave WA2YYL - NAQCC LI Chapter, the Long Island CW Club

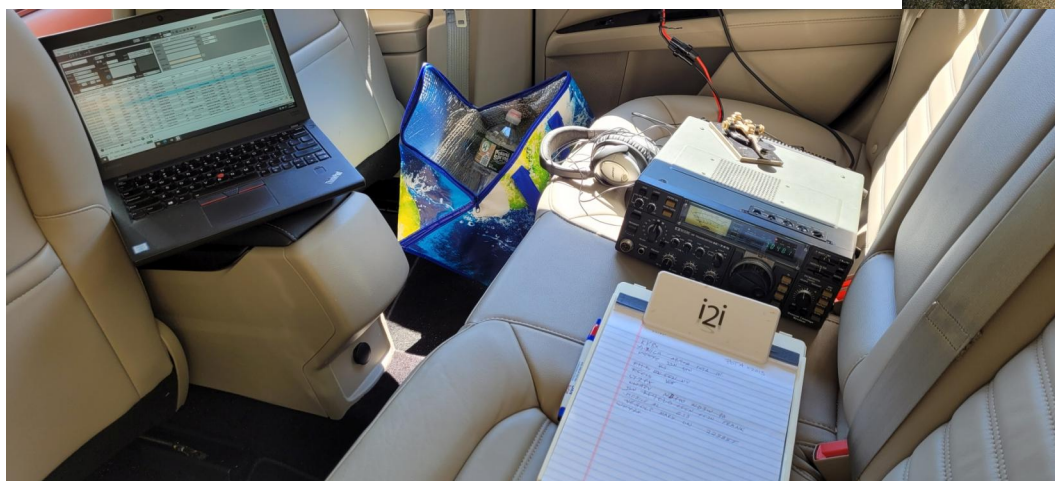
It was a perfect summer afternoon when Hal/WA2AKV and Dave/WA2YYL from the Long Island CW Club descended on Belmont Lake State Park in Long Island, New York (POTA K-2013).

Hal, using QRP and an EFHW held up by a mast propped up by a picnic table down by the lake worked 10 stations including Canada, England, Texas, North Carolina, Virginia, and Pennsylvania.

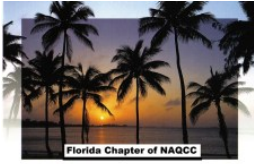
Dave set up in the parking lot and, using his Icom IC-745 at about 50 watts into an EFHW up about 20 feet, managed to work six state-side stations and one rare DX—Hal, from across the parking lot! Though band conditions weren't the greatest we still had fun working CW from our portable set-ups and hope to do it again soon.

Which state park will we activate next time? Read about it right here next month to find out!

(Two JPGs attached, one of Hal sitting with his setup and one of my setup in my car)



NAQCC FLORIDA CHAPTER



Items in this section are from the Florida Chapter unless otherwise credited. Questions and comments should go to Nikki, KM4SBQ.

The Florida Chapter website is <http://wb4omm.com/naqcc-fl-chapter>.

NAQCC WESTERN PENNSYLVANIA CHAPTER



Items in this section are from the Western Pennsylvania Chapter unless otherwise credited. Questions and comments should go to John, K3WWP.

NAQCC DOWNEAST MAINE CHAPTER



Items in this section are from the Downeast Maine Chapter unless otherwise credited. Questions and comments should be directed to Jeff, KA1DBE.

The chapter is located in the Hancock and Washington counties area of Maine.

NAQCC ILLOWA CHAPTER



Items in this section are from the Illowa Chapter unless otherwise credited. Questions and comments should go to Tim, N9BIL.

The Illowa Chapter operates in the “Quad Cities” area of Davenport, IA / Moline, IL.

The Illowa Chapter website is at <https://sites.google.com/site/naqccillowa2/>.

NAQCC GREEN SWAMP WCF



Items in this section are from the Green Swamp WCF Chapter unless otherwise credited. Questions and comments should go to Gary N3OS.

The chapter's website is <https://www.zaarc.org>.

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NAQCC CLUB INFORMATION

STATEMENT OF PURPOSE

Amateur radio has something for everyone. For a growing number of folks, the challenge of "doing the most with the least" makes QRP (and QRPp) CW operating the greatest thrill available in amateur radio. The North American QRP CW Club Inc. exists to promote and pursue designing, information sharing, building, and operation of low power, Morse Code enabled Amateur Radio (FCC Part 97) equipment with simple wire antennas for both emergency and personal communications purposes, an exciting facet of the hobby.

The NAQCC provides numerous opportunities for hams to operate in QRP/CW activities. For contest types we have a popular monthly 2-hour sprint that runs at relatively low CW speeds and at a fairly relaxed pace to increase code skills and experiment with different antennas. Three special sprints also take place during the year for 160-meter and QRPp (less than 1W of power) operators. For a month-long activity we offer our members a Monthly Challenge that can be anything from forming a list of words from the calls of stations worked, to making a prescribed number of contacts using home-brew gear. There is also an extensive awards program to recognize the significant QRP/CW accomplishments of our members.

We also serve as a resource for people who are just getting started in QRP and/or CW, sharing information on low power Morse operations. Our slow-speed CW nets are a great place for beginners to practice Morse code under real on-air conditions. Beginners will also find a wealth of helpful information on these web pages and we are more than willing to answer any questions about QRP, CW, and simple wire antennas that you might have. An extensive monthly newsletter is filled with useful projects and news from fellow QRPers.

A number of local NAQCC Chapters offer opportunities to get together for in person socializing and QRP/CW activities. Portable operations are especially popular with the local chapters.

Whether you are a veteran ham radio operator who is looking for a new challenge in the hobby, or a beginner who is intrigued by the possibilities of QRP/CW communication, we cordially invite you to join us. Membership is free and the benefits and fun are significant.

REPRINT POLICY

Unless otherwise stated in the article, local clubs and other ham radio organizations are free to reprint featured articles from this newsletter, provided appropriate credit is given to the North American QRP CW Club and the author of the article. If at all possible a link to the club website at <http://www.naqcc.info/> should be included.

NAQCC CONTACTS

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NAQCC CW Nets	Mark W8EWH	mark.yergin@gmail.com

NOTE: These email address are not automatic links.

They are given here in graphic form to avoid harvesting by spambots.

The North American QRP CW Club Inc., is organized exclusively for scientific purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code of 1986, and the Georgia Nonprofit Corporation Code to advance, promote, and pursue designing, information sharing, building, and operation of low power, Morse Code enabled Amateur Radio (FCC Part 97) equipment with simple wire antennas for both emergency and personal communications purposes. No dues or membership fees - open to any licensed radio amateur or shortwave listener (SWL) worldwide with interest in CW/QRP operation. Encouraging the use of CW and helping all hams increase CW speed and proficiency is a top club priority. Club activities are dedicated to QRP/QRPp operation, using CW and emphasize using simple wire antennas.

The North American QRP CW Club was founded in 2004 by WY3H and K3WWP and now has over 9500 members world wide. Membership is free and anyone interested in CW/QRP operating is welcome. Complete information about the NAQCC, including a membership application, activities schedule, and useful resources, can be found on our website at <http://www.naqcc.info>.

Inquires can be sent to:

Club President Steve Szabo, WB4OMM
536 Central Park Blvd
Port Orange, FL 32127 USA

