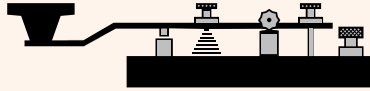


NAQCC NEWS

ISSUE 289 • JULY 2022



KEY CLICKS

• IN THIS ISSUE

The Prez Sez... things are heating up; 18th Anniversary fun and prizes; A QRP library; QRP on the high seas; Adapt a keyer for “single-dash” mode; A trunked mode challenge; Member poll; Net reports; Long-distance awards; WFL fun in the field; Prize sponsors; and more.

• OPERATING AS N3A

Our 18th Anniversary celebration is a little more than three months away and we have only three signups so far. It is a great way to work QRPx2 contacts and acquaint CW ops with our club. More details on page 3.

• FREE QRP BOOKS

Paul W0RW #2500 has a wonderful selection of books of interest to the QRP, antenna, or clandestine radio enthusiast. All it cost you is the book-rate return postage. Details on page 4.

• 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!

I hope this month's message finds you well!

Summer has fully arrived—it's HOT out there! Make sure you hydrate and take frequent breaks in the shade when you're outside. Best wishes for a safe and Happy July 4th Holiday.

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@arrl.net

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

AND HAVE FUN!

JULY NAQCC ACTIVITIES: (LOTS GOING ON THIS MONTH!!!!)

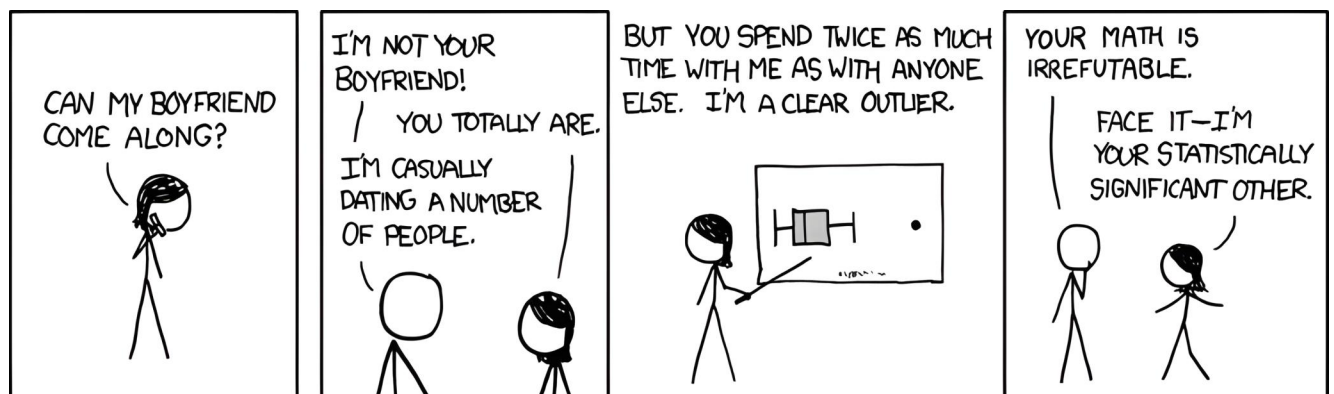
- **Regular Monthly Sprint**—Wednesday, July 21, 2022, 0030-0230 Z- (That's the evening of Tuesday, June 7, 2022 for us here in North America). <http://naqcc.info/contests.html>
- **July 2022 Monthly Challenge**—The Trunked Radio Challenge - <http://naqcc.info/challenges/challenges202207.html>
- **Weekly Nets**—http://naqcc.info/cw_nets.html

72/73!

Steve Szabo WB4OMM #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 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. 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.

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.naqcc.info/prize_drawing_18th_anniv.html for drawing details.

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.

The 4SQRP Bayou Jumper, a modern paraset



QRP BOOKS IN THE WORW LENDING LIBRARY

BY PAUL WORW #2500

THE WORW LENDING LIBRARY HAS A LOT OF QRP BOOKS AVAILABLE

The books are available for review at 'Tiny-Cat.' (That is short for Tiny CATalog).

Go to: <https://www.librarycat.org/lib/WORW>

If you have never requested books before then you have to send me an email so I can approve your name and address, (Send email to w0rw1@msn.com).

After you get approved you can double click on a book from the scrolling banner or add a key word in the search block to find one (like QRP, Spy, or ARRL).

If you want that book, and it shows as "Available," Click "Check Out" button, then type in the password "paraset." Then select your name to check it out.

That's it. I will pack it up and mail it to you.

SOME RULES:

It is all free but there are rules to keep everything moving.

- Only 2 books may be ordered out at a time.
- This is a no smoking library.
- Return books after 1 month. You pay only

return postage.

- I can ship only to USA addresses.
- Use the Library Cat Web page to request books.
- I don't need to know when you received the book(s) or when you sent them off.

PROCEDURE:

I send the books to you, You read the book(s) and send them back.

Paul Signorelli WORW
905 Zodiac Dr
Colorado Springs, CO 80905

librarycat.org/lib/WORW

WORW Library

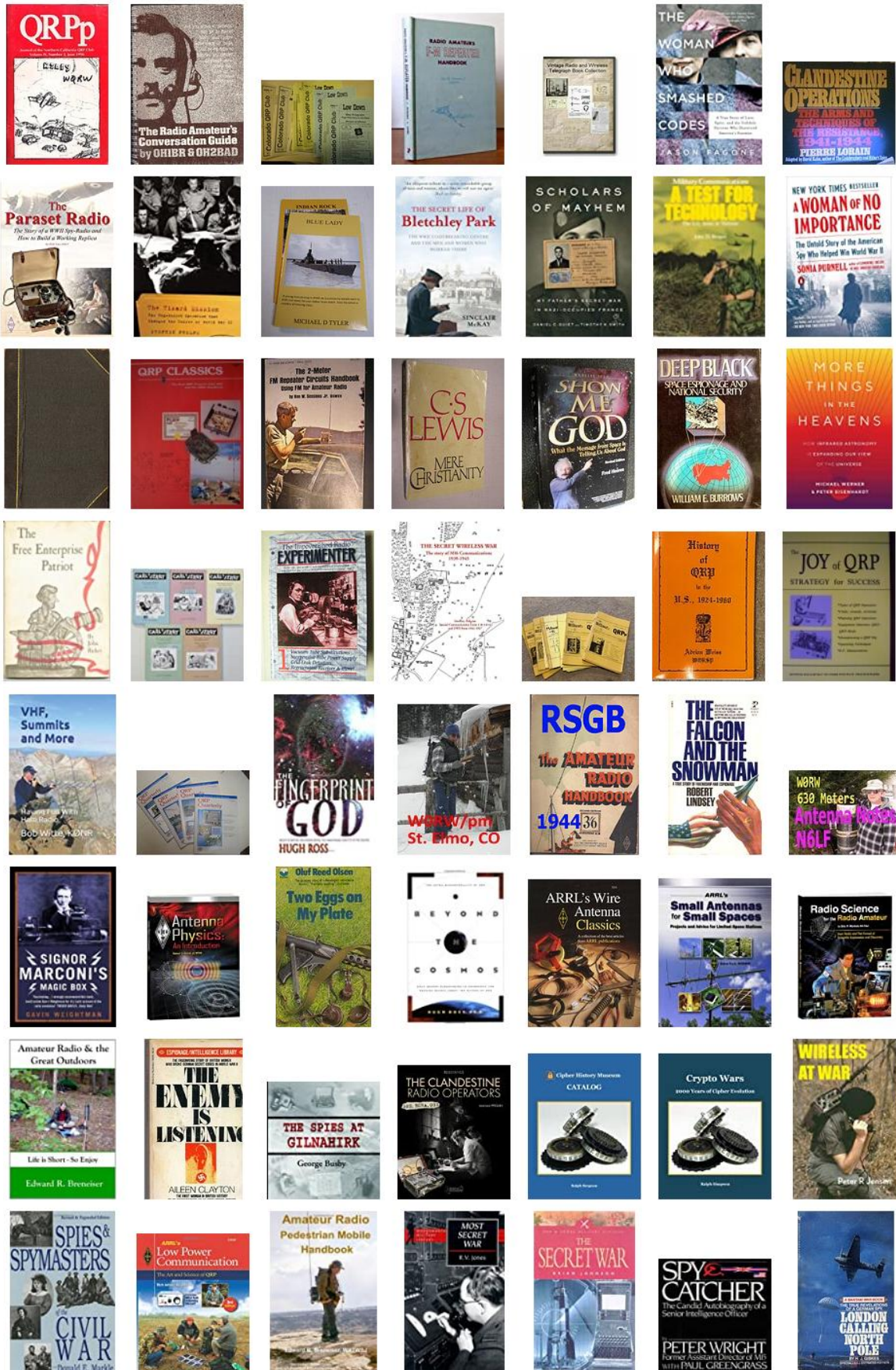
WORW Paraset Spy Radio

WORW Lending Library

This is a Free (No Smoking) Lending Library. If you have never ordered books before then you have to send me an email so I can approve your name and address, (Send email to w0rw1@msn.com).

Search for...

[Click Here to see a Tabular Book List](#) | Then Scroll down to see the book banner, Click on your selection.



MY SAILBOAT ANTENNA STORY AND CHALLENGE

BY JERRY N1QLL #1603

In the late 1990s, I was planning to retire when I was just 60. My world was going crazy and I needed to get away, but not so far away as to be out of touch with friends and brothers. One little voice said, "Get a sailboat" and the other little voice said, "Stay in touch...." But how? Ham radio!

I got my general class ticket, which at that time required 13 WPM CW, bought a basic radio rig and shopped for a rugged little boat. I found one to suit my needs and lived on it for two years before moving on. But during that time I tried to come up with a good grounding system for my antenna.

I never did completely solve this problem and would be interested in hearing how hams who have operated maritime mobile. Here's my story.

MARITIME QRP CW

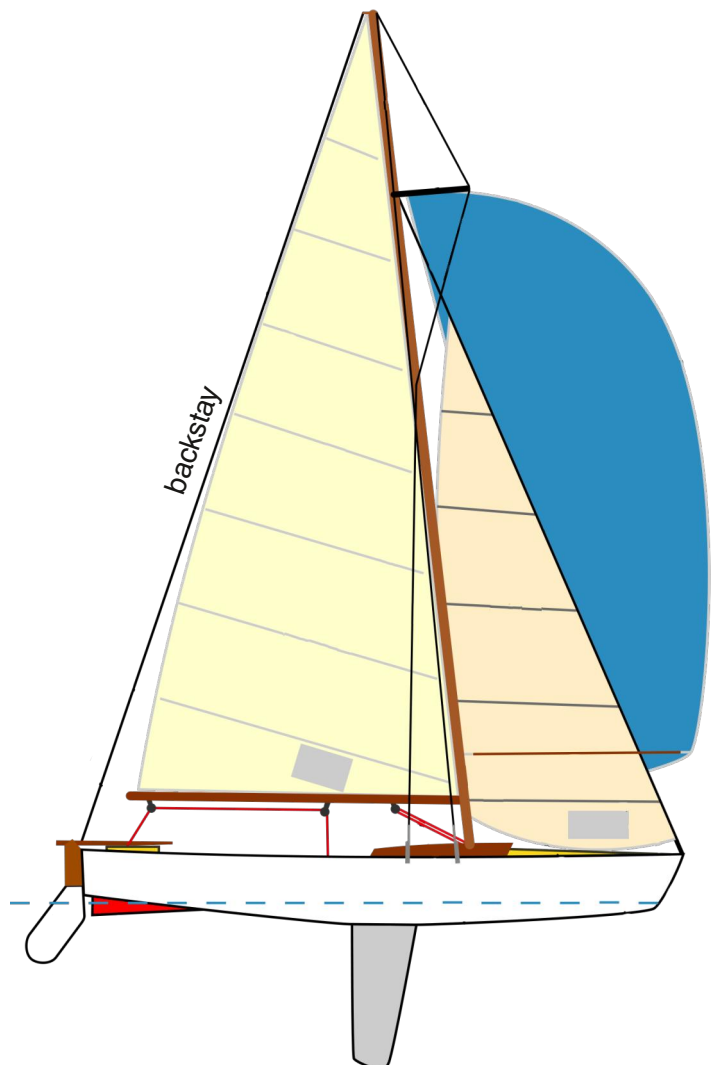
My rig back then was tiny and cheap, a Ten-Tec Model 555 Scout with plug-in modules for each band (I only used 20M and 40M) capable of putting out up to 50 watts. QRP had the advantage of being economical of power but there might come a time when I would be in an emergency and need more wattage. There turned out to be so many issues!

Members of the local ARC shared opinions and ideas. But right away there were technical problems. There's no room on a sloop for a horizontal dipole resonant on the HF bands, loop antennas take up space and generally only run QRP and are picky to tune, and you can't stake out a dozen radials and use the mast for a vertical.

I took off the boat's steel wire backstay (from top of mast to far aft) and put an insulator at both ends

and re-installed it as my antenna, feeding it with a well-insulated wire via an SGC automatic tuner.

Large boats can use windmills to keep the battery charged but my small boat was too small to keep a safe distance from the whirling blades, and not enough deck space for solar panels. I chose a submersible alternator fastened to a bracket on the stern that could be lifted out of the water to reduce drag or locked down, giving about one amp per knot and cutting a half knot off cruising speed.



GROUNDING ON THE WATER

What could I use for a ground when real “ground” was a hundred feet away, straight down? A good ground would give the antenna something to play against, and if the boat were hit by lightning it might minimize damage.

There were two schools of advice: the “condenser” and the “brick.” Pressing a large screenwire mesh against the inside of the hull could provide the counterpoise I needed: the mesh would be one side of a capacitor, sea water the other, and the fiberglass hull between them the dielectric.

Other hams advised a sintered bronze brick fastened to the outside of the boat below the water line and fed by a wire through a small hole in the

hull. Tiny metal spheres forced together by heat and pressure (sintered) would have small size but a potentially large area exposed to the sea water and capable of serving both purposes: as a ground side for the transmitter to feed and as an escape for the high voltage of a lightning strike. (Some claimed that a lightning bolt could suddenly overheat the brick, convert the interstitial water to steam and blow a hole in the hull.) I couldn’t decide which to use and didn’t want to offend anyone so I used both methods.

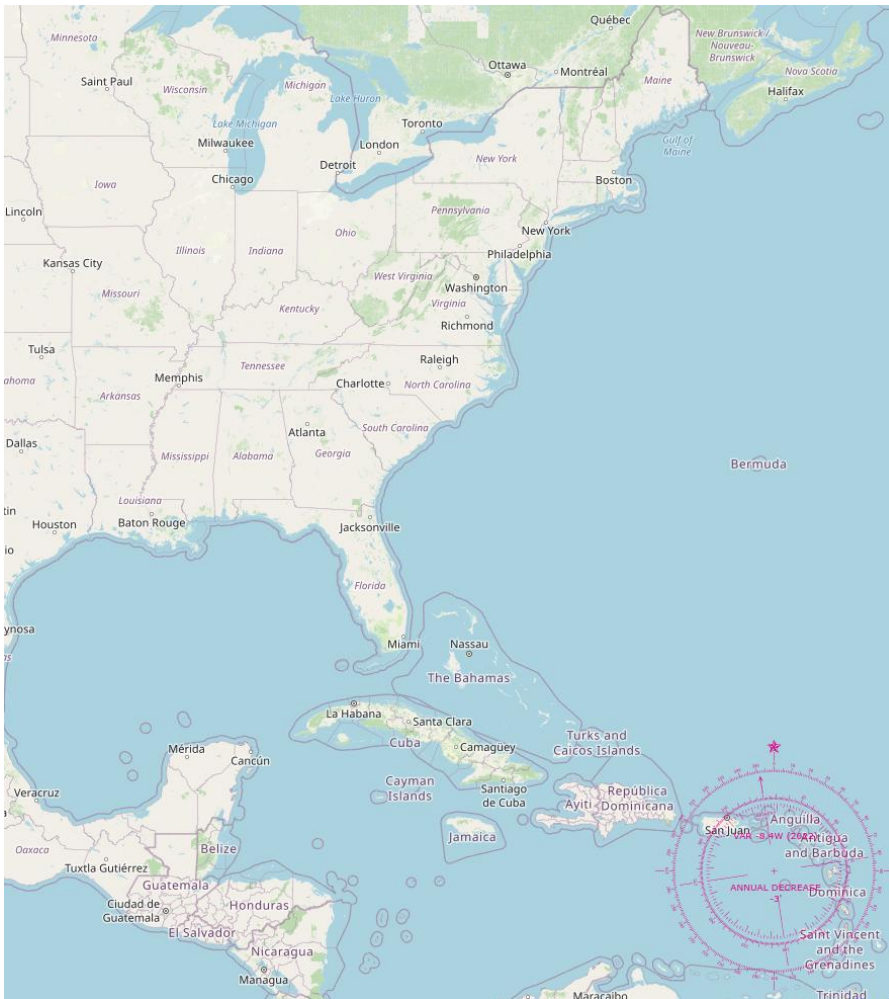
CW FROM MAINE TO THE YUCATÁN

So how did it work? A kind member of the Pine State ARC, K1AG (SK), offered to call me twice a week on Wednesday and Saturday nights at 8 PM.

He was a fan of CW and convinced me that “Morse Code gets through when nothing else will.” He stuck with his plan for over a year as my little sloop left home on the Maine coast, sailed to Key West and reached the Yucatán Peninsula. We made contact about 60% of the time.

The antenna turned out to be somewhat directional, transmitting best in the opposite direction the boat was pointing so if I had a choice I would anchor the boat with its butt facing home. When under way, the backstay was reasonably omnidirectional. Best of all, we never got hit by lightning.

The choices I made worked well but I invite your comments. Maybe we can solve some problems for adventurous hams of today.



NAQCC SPRINTS

JULY SPRINT

Our Sprint this month will be on Thursday, July 21, 0030-0230 Z. That's the evening of Wednesday, July 20th in North America. Complete information at <http://naqcc.info/sprint/sprint202207.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.

JUNE REGULAR SPRINT RESULTS:

Complete Sprint results, including all of the soapbox comments, can be found at <http://www.naqcc.info/sprint/sprint202206.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: KR4AE, W8EH, WO7T, W8KRZ, KE8NUM, & KI7PBR

June Sprint				
	Current Month	Previous Month	All-Time Record	Record Date
Logs	99	95	217	4/17
Participants	136	138	269	2/13
Total QSOs	1356	1376	3154	4/17
Hour 1 QSOs	807	766	1704	4/17
Hour 2 QSOs	549	610	1450	4/17
20m QSOs	400	568	1232	8/13
40m QSOs	893	732	2203	4/17
80m QSOs	63	76	1417	2/13
Avg QSOs/Station	13.7	14.5	19.3	9/11

SWA STRAIGHT KEY CATEGORY			
Division	1st	2nd	3rd
W1	KN1H	AC1KV	WB1GYZ
W2	KA2KGP	W2SH	K2CWM
W3	K3JZD	KC3MIO	K2DEP
W4	K4BAI	W1RCP	K4KRW
W5	N5GW	KA6J	KJ4WNA
W6	K6GPB	-	-
W7	K6XT	N7QR	KI7PBR
W8	W8GG	NF8M	AB8FJ
W9	WB9HFK	K9QEW W9YO (TIE)	-
W0	NOTA	AA5LH	NN0SS
Canada	VE7HI	-	-
DX	-	-	-

SWA BUG CATEGORY			
Division	1st	2nd	3rd
W1	W1ND	-	-
W2	-	-	-
W3	NN3E	K3WWP	-
W4	KJ4R	K3RLL	W4KAC
W5	-	-	-
W6	-	-	-
W7	-	-	-
W8	K8NGW	-	-
W9	K9DRP	AA9L	-
W0	KD0V	-	-
Canada	VE3HUR	-	-
DX	-	-	-

SWA KEYER/KEYBOARD CATEGORY			
Division	1st	2nd	3rd
W1	W1TER	KB1M	W1ZU
W2	WA1GWH	N2ESE	-
W3	KC3RN	-	-
W4	K4NE	N4MJ	KR4AE
W5	-	-	-
W6	-	-	-
W7	KF7Z	N7KM	-
W8	WA8SAN	WI8J	W8EH
W9	AB9BZ	K9EYT	-
W0	KQ0E	NO2D	KC2MJT
Canada	VE3DQN	VE3GNU	-
DX	DK1VD	-	-

GAIN CATEGORY			
KEY	1st	2nd	3rd
SK	NQ2W	WO7T	-
BUG	-	-	-
K/K	-	-	-

FIRST-TIME ENTRANT HIGH SCORE			
Key Type	1st	2nd	3rd
SK	W8KRZ	KE8NUM	KI7PBR
BUG	-	-	-
K/K	KR4AE	W8EH	-
PRIZE DRAWING WINNER			
W4NLT			

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+	WB9HFK NQ2W KF7WNS WB1GYZ KC7DM AA0W KB0ETU KJ4R K2YGM AA7CU N7QR NN0SS VE3GNU N8QY WY3H WD4OHD K6CSL W5UAA K4KBL WK6L KC2EGL K2HT KE9DR AB8FJ K4ORD NN9K K1IX K5GQ N1JI W4HH KB4QQJ KB9ILT
75+	N4MJ K4NVJ N8LA KQ1P KD3CA K9EYT VE3FUJ WD0K K9OSC N8BB WB4OMM N2CN KB1M K6MGO NF5U WA1GWH N8APO WI5H WA2FBN VE3DQN
100+	N0TA K1IEE K4KRW W4DUK KD2MX AA9L AK3X NO2D N5GW WB8ENE KN1H KA9FQG NA4O
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

K4KBL - Really different band conditions tonight. QSB and worked many very local stations. Had fun as always...

W8EH - My first sprint. Short on time. Next time I'll use the straight key.

AA9L - Lot's of signals on 40 but the band was noisy and the sigs were weak. But still was able to make a few contacts and that's what counts. Rich AA9L

K2OID - 40 was pretty good tonight. Operating from my daughter's QTH in VA rather than my NY QTH may have confused some "regulars". Brought my QCX+ with me. Amazing how well 5 watts and a simple dipole only 15 feet off the ground works! QRP is absolute magic!

KE5YUM - I set up a portable station on a picnic table at our vacation site in northeast Wisconsin. After two quick contacts, the battery was getting weak and the mosquitoes were ganging up on me.

WT4U - I started off with the MTR-4B on 20m. When I switched to 40m, it was putting out just 3W, which was plenty to work Jerry K4KBL, but Mark WB9HFK couldn't hear me after repeated calls. Switched over to the 'QRO' rig with a full 5W and I was surprised he answered on the first call. Guess it made a difference that time. Back at it with 1 watt next week!

KE8NUM - Thanks to the stations that worked me for my very first sprint. I did not make many QSOs but I really had fun getting my new QRP rig outside for this event.

N4SD - Always amazed at what 5 watts can do.



JUNE MW SPRINT RESULTS:

Complete Sprint results, including all of the soapbox comments, can be found at <https://naqcc.info/sprint/sprint202112mw.html>

SWA STRAIGHT KEY CATEGORY			
Division	1st	2nd	3rd
W1	K1MZM	KN1H	WB1GYZ
W2	KA2KGP	KN2G	W2SH
W3	K3JZD	KC3MIO	WB8YYY
W4	KC5F	K4JPN	N4SD
W5	N5GW	AC5BX	-
W6	K6GPB	-	-
W7	N7KM	N7QR	-
W8	NF8M	-	-
W9	WB9HFK	K9NUD	K9QEW
W0	AA5LH	-	-
Canada	-	-	-
DX	-	-	-

SWA BUG CATEGORY			
Division	1st	2nd	3rd
W1	W1ND	-	-
W2	KF6C	N2RIC	-
W3	K3WWP	-	-
W4	KJ4R	K3RLL	-
W5	-	-	-
W6	-	-	-
W7	-	-	-
W8	K8NGW	-	-
W9	K9DRP	-	-
W0	KD0V	-	-
Canada	-	-	-
DX	-	-	-

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

SWA KEYSER/KEYBOARD CATEGORY			
Division	1st	2nd	3rd
W1	KB1M	W1ZU	K1IX
W2	WA1GWH	-	-
W3	KC3RN	AC5XK	KM3D
W4	K4KBL	K9EZ	K4KRW
W5	-	-	-
W6	W6JIM	-	-
W7	-	-	-
W8	WI8J	-	-
W9	AB9BZ K9EYT (TIE)	-	-
W0	KC2MJT	-	-
Canada	-	-	-
DX	-	-	-

FIRST-TIME ENTRANT HIGH SCORE			
Key Type	1st	2nd	3rd
SK	N4SD	K9QEW	KN4RQD
BUG	N2RIC	-	-
K/K	NG2J	-	-

QRPP STATS:	
Logs submitted:	63
Total participants:	94
Total QSOs:	614
States/Provinces:	29 + ON

QRPP SPRINT SOAPBOX SAMPLER

KD0V - The wx has been good enough to get my cf Zepp repair and back in the air. What a difference a good antenna makes. That for the contacts everyone.

N4OW - High band noise on 20 & 40 not many stations heard. Some very nice sigs for QRpp. I used my KX3 at 800mw and battery power.

W1BLU - Surprised to see 20M still open for me after sunset in S. FL. Band was quieter than 40M. Thanks to all.

K2CWM - I usually don't participate in this QRPP stuff but thought I'd give it a try. Set the MAX POWSET in my IC-703 to one watt, then turned it down to 800 mW. Surprised myself with 7 contacts (hi hi). Used my big wooden-based Kent Str Key and vertical antenna. See y'all next time.

W1ND - Woo hoo. Camping this week in Grand Isle, VT at a campground on lake Champlain. I had my CHA Non Resonant Vertical on a Buddipole tripod and a 41' wire in a maple tree. I even packed my Begali Intrepid in an Apache case for this sprint. Only worked a little more than the first hour of the sprint, but did pretty good. Mosquitos and spiders did me in. 20 wasn't too bad. 40 was good between the lightning crashes I cannot get on 80 here Fitting that my final contact was Steve, KC5F who sounded like AC5F at first :-)

KM3D - K9QEW has great ears! -an amazing contact using my NN1G MkII built from Jan 1993 QRPARCI article 'way back when'. Incredible what 900 mw and a wire can do! 72 de KM3D

KB1M - Started at 300 mW on 20 and worked N4OW and then K4JPN at 400 mW all other Q's of evening were at 500 mW. No luck on 40 for sub 500 mW pwr. QRN on 40 was bad, neither antenna made any difference for reception. Thanks for the fun evening! 72, Walt



QRPP TIPS FROM JOHN K3WWP #002

Operating with QRPP is not all that much different from operation with 5 watts. Using a half watt is 10 dB lower than 5 watts so at 6 dB per S unit, that's less than 2 S units lower. If you were S9 (599) at 5 watts, you would be S7 (579) at the half watt level. That's the same as 50 watts vs. 5 watts. If you operate just under 1 watt (950 mW or so), that's roughly 7 dB which means only a reduction of 1 S unit.

Since you don't know what power the station you're trying to work is using, it's a good idea to call mainly the strongest stations you are hearing. If they happen to be running a KW or even 100

watts and are only S3 or S4, it's likely you will be well below their noise level with your QRPP power. That's not to say you won't be able to work a station if he is only S5 or less. They could have a superb receiving setup in a very quiet location with an excellent op at the key. However for the most part you probably will only be working those who have a strong signal at your QTH.

All the other advice about QRPP operation such as keeping your calls short, your keying as close to perfect as possible, your antenna matched to your rig as close to 1:1 SWR as possible, etc. apply equally to QRPP.

A “SINGLE-DASH” SQUEEZE KEYING ADAPTER

BY BRIAN NM7T #11215

The name “single-dash” may sound a bit ambiguous for a keying mode, but it describes exactly how it operates. When the dash lever is closed, one single dash is sent, followed by dots (as long as you hold the dash lever closed). To send two or more dashes, as in the letters “Z” or “J,” a squeeze is required. The dot lever acts like a typical dot lever. But when it's used to “land” a squeeze, you get the feeling it's another dash lever!

BASIC VS. AUTO-Q AND ADAPTING TO A KEYSER

Single-dash mode has two versions, basic (the adapter version) and “auto-Q.” The main difference between the two is auto-Q gives you the option to send the letter Q in one squeeze (held to the last dash). Although it's convenient to use, there's no rhythmic feel to it. Sending the three-stroke “Q” is much more fun.

You may be wondering, “How can a keying adapter operate with a keyer or radio that has only mode A or mode B?” The answer is, it can't. But if the hostkeyer lets you disable the dot memory, or the host's mode A is “basic” iambic mode, then that keyer will work perfectly with the adapter. Also,

there are some keyers that feature ultimatic mode, minus dot & dash memory. The adapter will work fine with this.

OVERVIEW OF SINGLE-DASH MODE

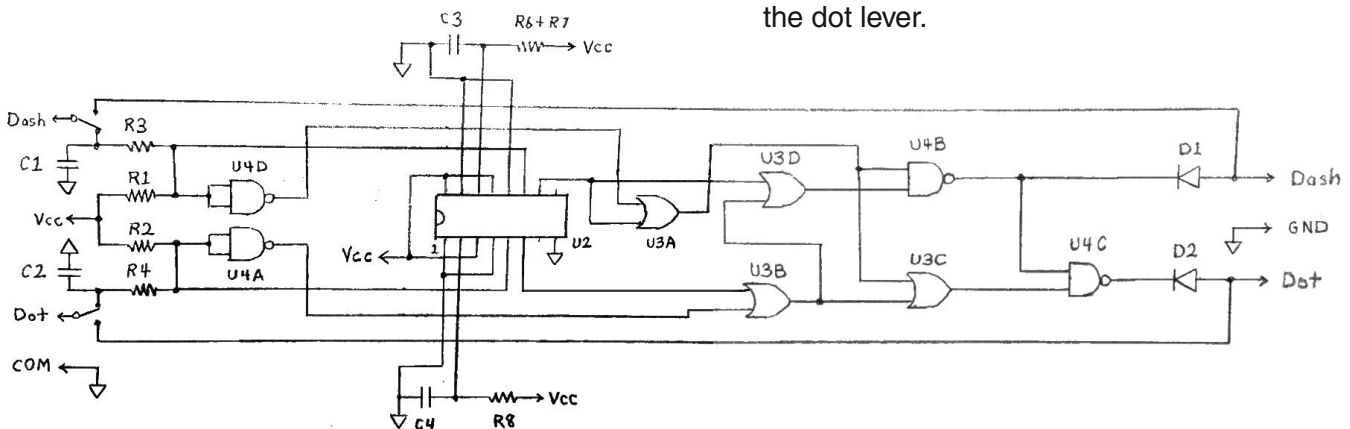
Creating dashes out of dots is done by “squeezing.” You just have to time the landing of each squeeze to cover a portion of the space before the dot. The closer you land the squeeze to the soon-to-be dash, the more rhythmic it will feel.

The dot-leading iambic characters R, L, and F are sent with a “swing” motion. You don't have to squeeze the dash in these letters, but in doing so, you will have an easier time when it comes to sending those multi-swing characters.

EXAMPLES

The technique for sending a “C” with swing is described below.

1. Press and hold the dash lever to generate the first dash, the dot, and the upcoming dash.
2. Close the dot lever just before the second dot starts. Hold the squeeze while the dash is being sent. The final dot of 'C' is sent by the dot lever.



Mode Press Count Comparison Table			
	Iambic	Ultimatic	Single-Dash
A	2	2	2
B	2	2	1
C	2	3	2
D	2	2	1
E	1	1	1
F	2	2	2
G	2	2	2
H	1	1	1
I	1	1	1
J	2	2	2
K	2	2	2
L	2	2	2
M	1	1	2
N	2	2	1
O	1	1	2
P	3	2	2
Q	2	2	3
R	2	2	2
S	1	1	1
T	1	1	1
U	2	2	2
V	2	2	2
W	2	2	2
X	3	2	2
Y	2	2	2
Z	2	2	2
0	1	1	2
1	2	2	2
2	2	2	2
3	2	2	2
4	2	2	2
5	1	1	1
6	2	2	1
7	2	2	2
8	2	2	2
9	2	2	2
Totals	65	64	63

The sequence of lever presses for sending a rhythmic 'Q' are:

1. Press and hold the dash lever.
2. Close the dot lever just before the first dot starts, and release the dash lever at (or near) the end of the newly created dash. With the dot lever still held, the dot of 'Q' will be sent. Keep the dot lever held when...
3. The dash lever closes to create the final dash.

The swing method of sending can be summed up in one rule:

“Don't press the same lever twice in a row if the other lever is free to send the next dot or dash.”

OVERVIEW OF THE KEYING ADAPTER

The keying adapter is basically a paddle signal router. It separates the single-dash and any paddle squeeze from the dots, and routes them out to the host keyer. The result is that the host keyer never 'sees' a paddle squeeze. But it will see the dot if a squeeze is released on a dash. This is why the host keyer must not be operating in a mode with dot memory.

The logic that makes the single-dash is creating a short squeeze of approximately 65 milliseconds. A 74HC4538 retriggerable monostable multivibrator generates this signal. It is also used to debounce the paddle signals.

The duration of the squeeze signal is not critical, but 65 milliseconds should be more than enough to trigger a dash (if you happen to make a shorter tap). The complementary “dash-debounce mask” makes this possible.

The dot-debounce mask duration is approximately 32ms, a little longer than a 40 wpm dot.

PARTS LIST

U1 5V regulator (if used)
 U2 74HC4538 Dual retriggerable precision monostable multivibrator
 (\$2.20ea at Electronic Goldmine)
 U3 74HC32 Quad OR gate
 U4 74HC132 or HC00 Quad NAND gate

D1, D2 1N914 (or equivalent)

R1, R2 56K 1/8W
 R3, R4 2.2K 1/8W
 R5 (small load for the 5V regulator)
 R6 - R8 470K 1/8W

C1, C2 10 nF 50V MLCC (any class)
 C3, C4 0.1 uF 50V Metalized Polyester or Metalized Polypropylene

Input and output capacitors for the 5V regulator, power jack, reverse-polarity protection diode, power on LED, etc.

DPDT switch*, two 3.5 mm stereo jacks, metal enclosure, IC sockets, proto-board, etc.

* Use a three-position (center off) DPDT toggle switch if one is available.

The keying adapter draws less than 50 microamps at idle, so you can use three AAA Alkaline batteries to power it. If you do power the adapter with batteries, be sure you install a *silicon* (no Schottky) diode at the battery holder so no current can flow into the batteries. This will also protect the adapter if the batteries are inserted backwards.

For added adapter protection, a 5.1V Zener (1N5231B or equivalent) should be installed on the Vcc bus to ground.

Note: The circuit was designed for battery power. When not powered, the connected host keyer will see a paddle squeeze. And, if the host keyer and keying adapter are powered from the same 5V regulator, the host may sense a logic LOW condition on the paddle input even though the two power up at the same time.

I am happy to answer any questions on my little circuit, or any keyer, past or present.



Prototyping the single-dash mode adapter

73, Brian NM7T #11215
 bkelley@tutanota.com

NAQCC CHALLENGE BY GARY K1YAN #2365

THIS MONTH'S LETTER CHALLENGE: TRUNKED RADIO SYSTEMS

Today, with increasing demand for radio spectrum, there is a need to maximize the use of frequency assignments. If you were a company with a traditional radio system and several groups of employees, who needed to communicate only within their group, you might think about a separate frequency for each group. This would allow a group to hear only their own traffic and not unrelated transmissions. Since a typical business user spends very little time actually transmitting (unlike we hams) the result is a lot of dead air time across all those frequencies. In effect, a lot of wasted spectrum results.

BETTER USE OF SPECTRUM

To make things more efficient, lets add some technology with a trunked radio system. You will still need multiple channels but there can be fewer of them, the assumption being that not all groups will be active at the same time. Their use will be managed by a control system called the trunk.

Users who need to communicate with each other are placed into talkgroups. The trunk is run by a computer system which assigns a talkgroup a channel, in real time, as needed.

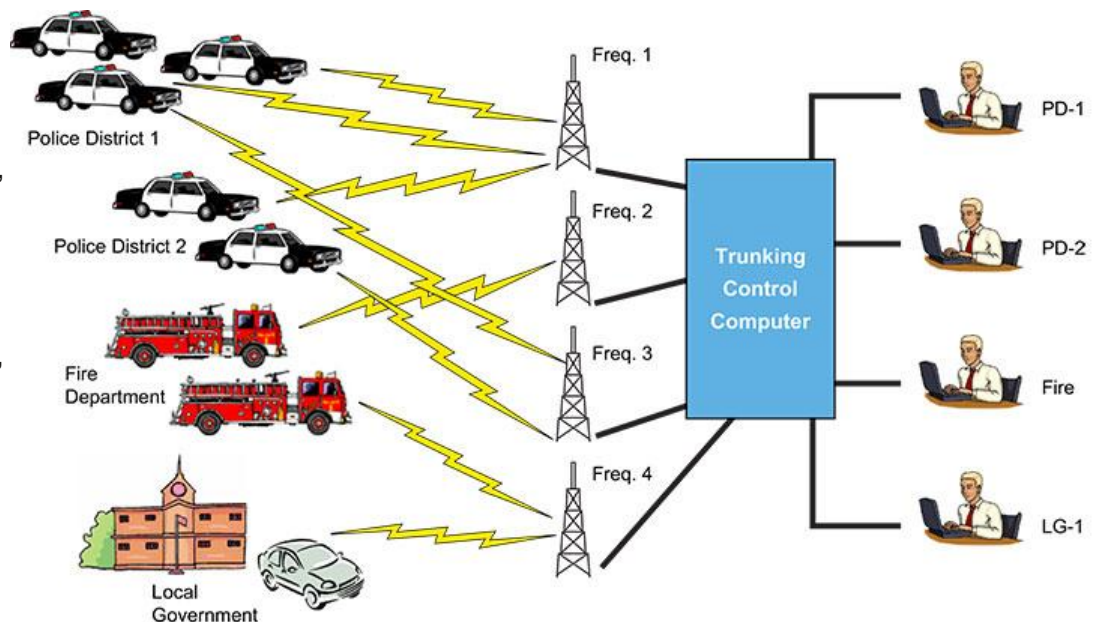
When the trunk hears a user become active, a data packet is sent to all members of the talkgroup telling them which channel to use. In some systems the group will stay on that

channel until the conversation is done, while in others the trunk will assign a new channel for each individual transmission. In some systems (dedicated) the trunk will stay on one channel, while in others (dynamic) the trunk and the users will all change channels.

SECURITY, SORT OF

For a system that changes channels with each individual transmission it is very difficult to follow the conversation without a trunked radio. This provides a measure of security and resistance to interference for sensitive communications, such as police and fire departments.

The system can be set up with priorities for the various talkgroups to help insure that the more important traffic gets through. Some systems also have an emergency button feature which insures an emergency transmission will get through immediately. So, if you are a scanner guy and having trouble monitoring some services, a trunked radio system may be the reason.



NEXT MONTH'S CHALLENGE

In August, if you know what's good for you, you'll do the Medical Product Safety Letter Challenge. <http://naqcc.info/challenges/challenges202208.html>

LAST MONTH'S CHALLENGES

The deadline for submissions for the Ten Cent Beer Riot Letter Challenge and Field Day Challenge is still a few days away. You can see what has been submitted so far at <http://www.naqcc.info/challenges/challenges202206.html> and <http://www.naqcc.info/challenges/challenges202206fd.html>. Final results will be posted on those pages 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 WI5H NF1U WA2FBN AK3X W3IQ KJ4R VE3DQN G3JFS AH6AX N9SE WB4OMM
75+	PA0XAW
100+	K1IEE
125+	K1YAN
150+	W2JEK K3WWP N8XMS

CHALLENGE SOAPBOX SAMPLER

NQ8T - I really enjoyed that! I am hooked!! MNY TNX! to all those who make this club run! 72 steve NQ8T

AK3X - Fun challenge. Lots of E's needed. N5EE completed this one for me. 72 all.

DL4SAS - The title of this challenge caught my interest because the word "beer" needs to be matched. Numerous QSOs later and my first challenge was completed. The monthly challenge is a great idea. I like it. Did I mention that I also like drinking a cold beer? Thanks es 73, Gene

W9SAU - I've been a member for a while, but just worked my first challenge in May. Interesting and informative stories. Excellent application to save time and headaches for entering the callsigns. Finding the elusive letters is a challenge, and it's a great motivator to work more QSOs. Thanks for making it fun!

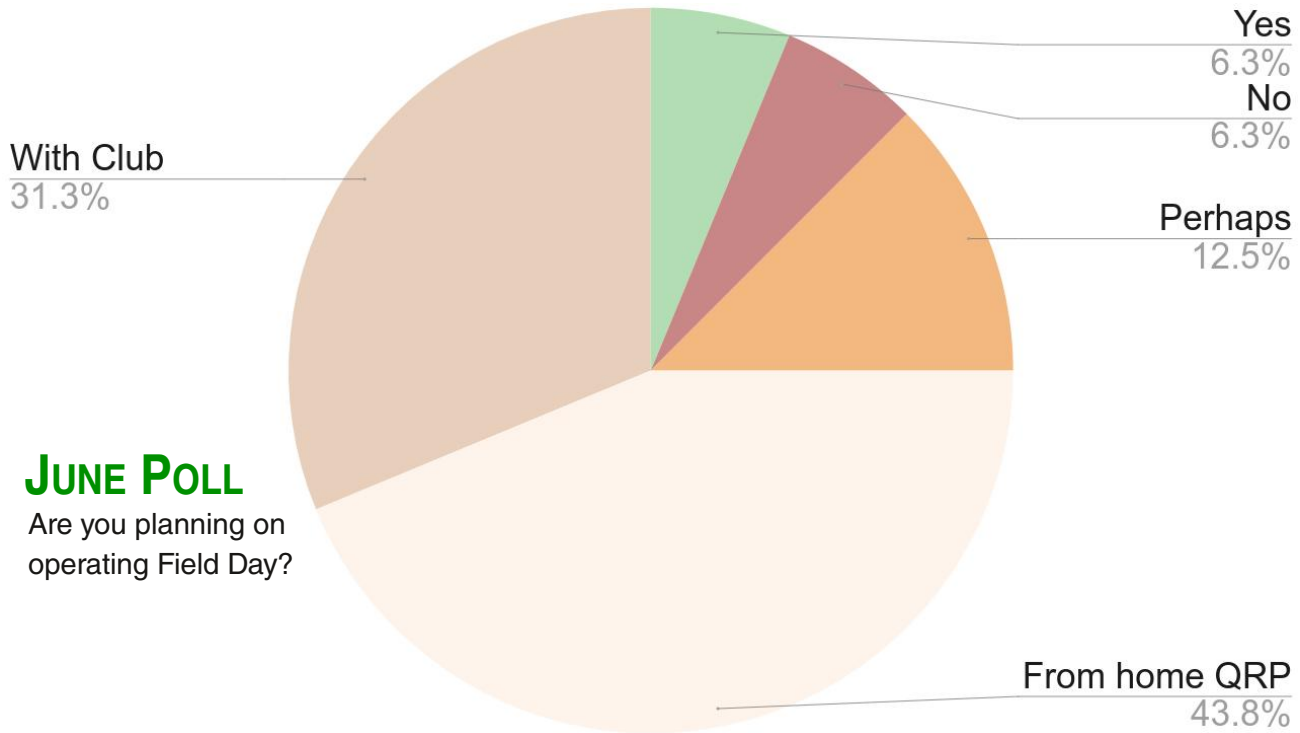
W2ITT - Whew, just made it in time this month.



MEMBER POLL

JULY POLL

Do you use NAQCC Self-spotting links? Let us know at http://naqcc.info/poll_new.html



JUNE POLL

Are you planning on operating Field Day?



Ham History BY DICK SYLVAN, W9CBT



REMEMBER THE KNIGHT KIT SPANMASTER RECEIVER SOLD BY ALLIED RADIO IN 1967?

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.

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 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.)

Week of May 29 – KE7UUJ (6), WG7GR (3), WB7S (4), WC7S (3)

Week of Jun 05 – KE7UUJ (4), WG7GR (1), WB7S (3), WC7S (3)

Week of Jun 12 – KE7UUJ (2), WG7GR (1), WB7S (1), WC7S (1)

Week of Jun 19 – No Nets this Week

Week of Jun 26 – No Nets this Week

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

Jun 06 – No Net (Working)

Jun 13 – No Net (Working)

Jun 20 – QNI (4) W0CC, KE8PAG (relay via AB9BZ), KC9TYA, K4JNP
More than enough QRN to go around; however, Fine Business by Michael, Mark, John and Dave.

Jun 27 – QNI (3) W0CC, AB9BZ, KC9TYA
Some QSB but the band is much better than it has been for some time. Hopefully, the sunspot situation has stabilized.

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)

Jun 07 – QNI (4) NCS KA5TJS, KE5YGA, N4NN, KA6J
Good conditions last night on 40 meters. YGA was 589 with 5 watts NN was 579 and Jim KA6J was 589 with 5 watts and a ground mounted vertical near Austin. He was checking out his setup for the sprint Tuesday night. QRN was a little up but good signals from all.

Jun 14 – No Net
I did not call the net last night. We hit 98 deg and my little window AC in the shack does not cut it at those temps. The shack is on the west side of the garage and the afternoon sun hits the wall and with DST is still well up at net time. Hope we will get a break from the heat next week.

Jun 21 – QNI (2) NCS KA5TJS, KE5YUM
Just Terry and me last night. Signals were good 579 both ways from TX to AR. Hot in the shack but we got it done.

Jun 28 – QNI (2) NCS KA5TJS, N4NN
Only heard Allen tonight. Good signal from GA. Conditions pretty good.

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)

Jun 03 – QNI (1) NCS AD7BP

Jun 10 – QNI (4) NCS KE7LKW, KI7SJE, AD7BP, WB4SPB

Jun 17 – QNI (7) NCS WB7WHG, KE7LKW/P, WB4SPB, AD7BP, W7ANM, K7JUV, N0DA/P

Jun 24 – QNI (7) NCS KE7LKW, KI7SJE, AD7BP, WB4SPB, N0DA, W7ANM, K7JUV



NAQCC AWARDS

FEATURED AWARDS:

1000 MILES PER WATT AWARD

Make a QSO using 5 watts or less power and a simple wire antenna in which distance(miles) / power(watts) is greater than 1000.

To show the super-efficiency of CW, this award is issued to anyone who demonstrates that efficiency by making a QSO using QRP or QRPp and a simple wire antenna per NAQCC standards where the distance between stations divided by power in watts is greater than 1000. You can find a distance calculator [here](#).

KMPW 100 AWARD

Make 100 QSOs in which distance(miles) / power(watts) is 1000 or greater.

It is fairly easy to get a 1000 MPW award with the modern equipment in use nowadays. Russ N9IV wants to make it a bit harder and he suggested this award. It involves making not 1, but 100 KMPW QSO's. Even that is not all that hard in

reality as I found out when I (K3WWP) checked my log to see roughly how many such QSO's I had here. I used a great circle map centered on Kittanning, PA and added up all my QSO's from countries that were entirely 5,000 miles or more from my QTH. I didn't count QSO's from countries that were partly inside the 5,000 mile distance nor those countries within 5,000 miles that I worked with less than 5 watts. Going by that premise I have 395 such QSO's, 169 of which are verified by regular QSL card. I mention the verified total because Russ believes all the QSO's should be verified. We address that in the rules below. When you work on your totals, you can find links to distance calculators [here](#).

NOTE: The mileage figures listed in the QRZ.com database are NOT accurate. For example, in checking my Japanese QSO's, all come up to the same exact distance there despite being in many different cities.

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



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 JUNE 11, 2022

Arrived at the park at 0845 hrs, moved into the main larger two-table shelter. Using my portable 20ft flag pole, attached to one pole of the chain link fence surrounding the play ground, attached my 20m end fed with balun antenna. Connected to my X6100 with LiFePO4 12V 8Ahr battery and keyer paddle. Later pulled out my IC705 with T1 Tuner, Bioenno 9Ahr battery and keyer paddle.



ATTENDING:

Ron, N9EE
 Don, KA2KDP
 Dan, KN4DN
 Frank, KK4YDF
 Jim, K4YZI

LOG:

Using X6100

1049	K4RUM	14.017	
1057	KR2Q	14.051	Doug, NJ, 3866S
1130	WD4MSM	14.046	IN
1145	K3CKO	14.052	NY
1202	K4WSN	14.0555	Bill/72, TX, 4986S
1230	N8KR	14.0535	Ken, IN
1247	WA9BBN	14.053	Ed/60, NY, 17763S
1338	WB2FUV	14.052	Mike/54, NY, 13057
1420	WW3AA	14.063	POTA

Using IC705

1510	K3EW	14.054	Phil/63, MD, 6605S
1518	N8KR	14.051	Ken/43, IN, 7559S
1521	N9ZXL	14.060	Dave/51, IL, 7114S
1527	KW5CW	14.063	OK





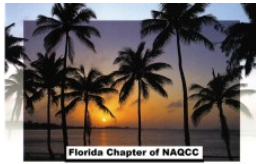
NAQCC LONG ISLAND CHAPTER



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

Questions and comments should go to Howard, WB2UZE.

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>.

NAQCC PRIZE SPONSORS



Fun and affordable kits from Pacific Antenna






Tracer Injector Tenna Dipper II

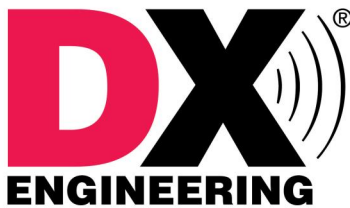
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NAQCC CLUB INFORMATION

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.

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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

