

ISSUE 256 OCTOBER 2019



 Our anniversary celebration is Here! The week long celebration for the NAQCC's 15th anniversary runs from 0000Z October 6 through 2400Z October 12. Members from all 10 US call districts and Puerto Rico have volunteered to put our special N3A/# callsigns on the air, with special certificates and QSLs available for those who work them. The special event stations will spot themselves on http://www.nagcc.info/ spot\_schedule.php in almost "real time" so check that spotting page often.

Member/participants in our anniversary sprint that week who submit a log by the submission deadline will be automatically entered into a random drawing for some really great prizes. The drawing will be held online shortly after the sprint results have been finalized, and will be announced in an email to the membership. Winners will also be notified by email.

There will also be a special anniversary prize drawing for our October challenge! It's an alphabet challenge so simply complete at least one of

the words, and submit your report by the deadline, and you will automatically be entered into that prize drawing. The drawing will be held shortly after the submission deadline in November and the winners will be notified by email.

The entire week should be a lot of fun and a great chance to promote QRP/CW operating and the NAQCC. You can find more information about the celebration on page 3 and at http://www.nagcc.info/ main n3a.html.

- BE SURE TO REVIEW YOUR PARTICIPATION POINTS. NAQCC members earn points as they participate in our monthly sprints and challenges. These points are used to determine our annual Participation Award winners as well as to see who is eligible for the top-tier prizes given away during our anniversary celebration. Now would be a good time to check your points at http://www.nagcc.info/ awards participation.html. (Records are normally updated around the middle of each month for the previous month.) If you have any questions about your points please contact Hap, K7HAP using the address given on that webpage.
- 2020 CHALLENGE SCHEDULE NOW AVAILABLE. Gary, K1YAN, has planned some great challenges for all of us to enjoy in 2020. The complete schedule is now available at http://www.nagcc.info/ challenges.html.

IN THIS ISSUE				
Key Clicks	1			
15th Anniversary	3			
Bumble Bee	5			
Member Spotlight	9			
Sprints	11			
Challenges	14			
Awards	16			
CW Nets	17			
Ham Quips	20			
Chapter News	21			
Member Submissions	33			
About The NAQCC	35			

36

Contacts

 Incoming NAQCC president honored by Daytona Beach. From the ARRL ARES newsletter: Steve Szabo, WB4OMM, former ARRL Northern Florida Section Manager, was recognized recently by the Daytona Beach city commissioners. "City Spotlight: Keeping our great community prepared and safe -- In emergency situations, knowledge and experience are vital, but it also takes a calm presence and a steady hand. Luckily for the City of Daytona Beach, it has Capt. Steve Szabo at the helm when it comes to emergency management. Planning year round for emergency incidents - whether natural or man-made - is a passion for this professional who works out of the Daytona Beach Police Department headquarters. Steve's love for emergencies began at 16 years old when he gained experience as an amateur radio operator. He started at the police department in 1981 and worked his way up into many leadership positions. During his career he served as the city's night shift incident commander for the 1998 Wildfires and worked eight tornadoes and 21 hurricanes. Most notably he was the city's emergency operations center director during hurricanes Charley, Frances and Jeanne in 2004, Hurricane Wilma in 2005, the Christmas day tornado in 2006, Hurricane Matthew in 2016, Hurricane Irma in 2017 and Hurricane Dorian. He also actively contributes to the contingency planning for special events including seven presidential visits to the city. While we can't prevent disasters from happening, we can control how we respond to them, and the City of Daytona Beach is proud to have had Steve at the helm of emergency management all of these years protecting our residents."

- CHECK OUT OUR MONTHLY POLLS. Jerry, VE6CPP, puts up an interesting poll on our club website each month. You can cast your vote in the current poll and see past poll results using the links on the main club page <a href="http://www.naqcc.info/">http://www.naqcc.info/</a>. The more people that cast a vote, the more interesting the results.
- THANK YOU FOR THE DONATIONS! A big "THANK YOU" goes out to everyone who has made a recent donation to the NAQCC treasury. The NAQCC has no membership dues and we depend on your generous donations to cover our operating expenses. If others would like to help out with a donation there are two ways that you can do it. The first way is to use *PayPal* to electronically send your contribution to Club Vice President John, N8ZYA, using the email found on the last page of this newsletter. To avoid any additional fees please be sure to check the box that says "*I'm sending money to family or friends*." Also please add a note indicating that this is a donation to the NAQCC and include your call sign. The second way to make a donation is to mail a check or money order made out to *The North American QRP CW Club* and send it to *John Smithson, 1529 Virginia St E, Charleston, WV 25311*. Assuming that we have your correct email address on file, your contribution will be acknowledged by email with a carbon copy sent to a second club officer as a "check and balance."

# NAQCC 15TH ANNIVERSARY1!



The 15th anniversary¹ of the North American QRP CW Club is finally here and we are going to celebrate! Our party will run from 0000Z October 6 UTC (Saturday evening October 5th in North America) through 2400Z October 12 UTC (the following Saturday evening). 35 NAQCC members (see the list at the end of this article) are teaming up to put special event stations N3A/1, N3A/2, N3A/3, N3A/4, N3A/5, N3A/6, N3A/7, N3A/8, N3A/9, N3A/0, and N#A/KP4 on the air using QRP/CW from every call district in the United States. QSLs and certificates are available for working these stations and a very special certificate can be earned for sweeping all 10 call districts. There is no set schedule for N3A/# operations but they will all be spotted using our special webpage at <a href="http://www.naqcc.info/spot\_schedule.php">http://www.naqcc.info/spot\_schedule.php</a>. QSL information can be found at <a href="http://www.naqcc.info/main\_n3a.html">http://www.naqcc.info/main\_n3a.html</a>.

On Tuesday evening of that week all 10 N3A/# calls will be participating in our special anniversary sprint (0030-0230Z, Oct 9 UTC) and that could be a good time to try and pick up that call district sweep. Every member who makes at least one sprint QSO and submits their log by the submission deadline will be automatically entered into a drawing where some great prizes will be given away. I won't reveal what the prizes are other than to say that for a club with no membership dues, the monetary value is fairly significant. Sprint details can be found at <a href="http://www.naqcc.info/sprint/sprint201910.html">http://www.naqcc.info/sprint/sprint201910.html</a> and information about the prize drawing is at <a href="http://www.naqcc.info/prize\_drawing\_15th\_anniv.html">http://www.naqcc.info/prize\_drawing\_15th\_anniv.html</a>.

Those of you who enjoy taking on our monthly challenges also have something special this month. A second prize drawing will be held shortly after the challenge submission deadline in November and any member who completes at least one of the alphabet challenge words and sends in their report will be automatically entered in the drawing. Details about both the challenge <a href="http://www.naqcc.info/challenges/challenges201910.html">http://www.naqcc.info/challenges/challenges201910.html</a> and information about the drawing can be found on that same page given in the previous paragraph.

So turn on your rig, tune-up your antenna, and get ready to have some fun celebrating the 15th anniversary of what is probably the best club in the world dedicated to QRP/CW operating!

\_\_\_\_\_

<sup>1</sup>The NAQCC was founded in 2004 by Tom Mitchell, KB3LFC now WY3H, and John Shannon, K3WWP,. Many of you might not be familiar with the interesting story of how it all started. You can read about that start, and the earliest years of the club, in an article written by Tom in 2008 at <a href="http://www.naqcc.info/newsletter\_history.html">http://www.naqcc.info/newsletter\_history.html</a>.

===========

We would like to thank the following NAQCC members who have volunteered their time and equipment to put our special callsigns on the air during our celebration week.

Calls in red will be operating the N3A call during our sprint.

N3A/1 - K1RID W1PQO

N3A/2 - KF6C N2JJF NR3Z K2CM

N3A/3 - K3EW NR3Z KC3MIO W3TTT K3WWP WA3PRR KC2EGL

N3A/4 - K4KBL KC4FLT K7EK AC6ZM K4BAI K4ARQ

N3A/5 - NF5U WI5H WA5LSV

N3A/6 - N6IET KA6TVX

N3A/7 - WA2DFI W0AUR N7CQR AF9W

N3A/8 - W8EWH N8XMS N3A/9 - NI9M AC9EZ

N3A/0 - K6XT W0EJ

N3A/KP4 - AC6ZM



# BUMBLE BEE BY JOHN, KK4ITX

OK, so I'm reading the latest (Aug. '19) issue of the NAQCC Newsletter and there is a mention of running out of articles for future issues...... sorry nothing of any value comes to my mind............ BUT then I read on and read about the Bumble Bee Event on July 28 that John (K3WWP) & Mike (KC2EGL) participated in. Yup, maybe there's a short story here!

I was going to write about my new super cool SK from MORSECW.us, so maybe more on that later.

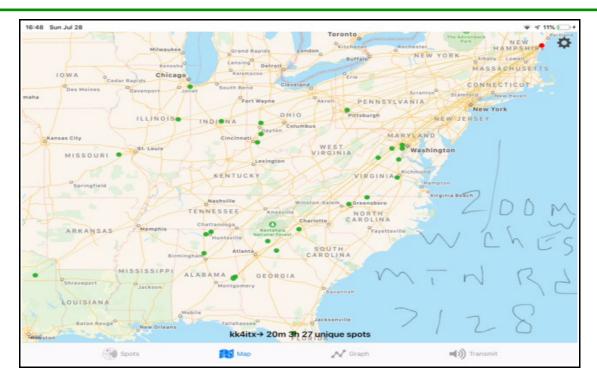


My very favorite outdoor QRP spot lately has been at the beach at Drakes Island in Wells, Maine which was a subject of an earlier article (June '19) from a 2018 outing of mine. This year I wanted to take part in the Flight Of the Bumble Bees (FOBB) but I also had a family wedding to attend next to the VT/NH border the day prior so I needed to rearrange my intended operating QTH. I got to the wedding area a few days early so that I could "scope" out potential locations for QRM as that is really troublesome for me at the Maine campground. So at a pre-wedding gathering at my Brother-in-Law's newly acquired Handy Man Special Connecticut River front property I ran my HF HT around the lot and found it to be just as quiet as the beach !! Problem solved. Traffic count 4 cars a day, 3 are lost.

So now I am at my FOBB spot and it's hot, but there is a tree and I have plenty of coax so I set up with the back of the car pointing WSW, 7ft telescope antenna on top of the Wolf River Coil and set it for 20m. Next I decided to run WSPR with my 200mw WSPRLite XMTR for reference. This transmitter's output of 200mw is equivalent to roughly 4w CW so it is a fairly good test to show the potential for today's operation. The RED dot is me and the GREEN dots are the reporting stations of my signals.

My very favorite outdoor QRP spot lately has been at the beach at Drakes Island in Wells, Maine which was a subject of an earlier article (June '19) from a 2018 outing of mine. This year I wanted to take part in the Flight Of the Bumble Bees (FOBB) but I also had a family wedding to attend next to the VT/NH border the day prior so I needed to rearrange my intended operating QTH. I got to the wedding area a few days early so that I could "scope" out potential locations for QRM as that is really troublesome for me at the Maine campground. So at a pre-wedding gathering at my Brother-in-Law's newly acquired Handy Man Special Connecticut River front property I ran my HF HT around the lot and found it to be just as quiet as the beach !! Problem solved. Traffic count 4 cars a day, 3 are lost.

So now I am at my FOBB spot and it's hot, but there is a tree and I have plenty of coax so I set up with the back of the car pointing WSW, 7ft telescope antenna on top of the Wolf River Coil and set it for 20m. Next I decided to run WSPR with my 200mw WSPRLite XMTR for reference. This transmitter's output of 200mw is equivalent to roughly 4w CW so it is a fairly good test to show the potential for today's operation. The RED dot is me and the GREEN dots are the reporting stations of my signals. (*picture on next page*)

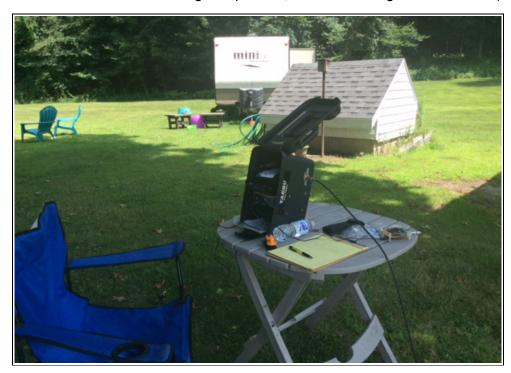


The map shows where my 4-5w CW signal might be heard if someone was listening.... nice tool. So I completed my set up as the pictures show:



With the antenna on the front and the car body as my ground we are looking good to the WSW. The Connecticut River is just over the guard rails in the far background is Vermont, the town is Chesterfield, NH.

I found shade beneath a large maple tree, there was a slight breeze too :-)



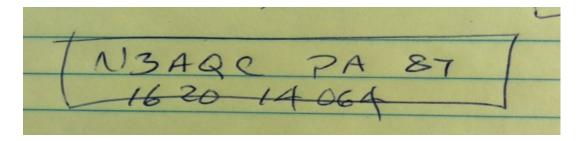
A bottle of water, pen, paper....... did I mention that it was QUIET? I am a real rookie when it comes to CW and sincerely appreciate all of the help that I've received from many, many folks. I have yet to find anyone that will not put on their brakes and slow down for me and somehow you folks always fill in the blanks to my missing or incorrect letters, I thank you all.

Below is a closeup of my QRP rigging. FT-818, LDG-817 tuner, 12v 7ah battery all mounted in an ammo box from Wally World and my new key ready.......... My new key has a "Navy Knob" on it and works super smoothly with its SS shafts and bearings amazing results from 3D printing for not much money....... I got the orange one so I could find it in the dark!



8

..... my one contact for the day1, can you believe it?



John (K3WWP) worked his butt off trying to copy my feeble CW, so thanks for making my day complete! If I make just one contact and get to exchange info I'm good for a few days!

CW is great, QRP makes it a challenge and the QRP/CW groups are AWESOME people!

73, John NAQCC 7249



<sup>&</sup>lt;sup>1</sup> N3AQC is our NAQCC club callsign. K3WWP and other members of the Western PA chapter were using it that day for their Bumble Bee operation. - Editor

## MEMBER SPOTLIGHT



Each month one of our members is randomly selected and asked to share their ham radio biography with all of us. Questions or comments should go to Paul, KD2MX.

DISCLAIMER: Any views expressed in this section are those of the submitting member and may or may not be those of the NAQCC or its officers.

## KEVIN MCKENNA, KE3V, #0855



#### My QRP CW Journey

My neighborhood friends and I got our start in radio communications with CB radio while in middle school in the 1970's. Becoming disenchanted with CB due to its limitations, we started investigating ham radio. One of my friends in the neighborhood had a cousin who was a ham. This cousin helped him to get his novice license and set up his first station. Within a year or so, my dad and I had our licenses. My first callsign, assigned to me in December 1977, was WB3KKT, the callsign I had for about 25 years.

That winter we neighbor kids studied as a group and went to the FCC field office in Buffalo, NY during Easter break to take our General class exams. We came back with Advanced class licenses. We had all passed the 20wpm code test but each failed the Extra exam by 2 or 3 questions, which we believe was due to studying from the same outdated material. The FCC didn't give credit for passing the 20 wpm code test back then, but earning the Advanced class made the trip worthwhile.

My first rig was a TS-520S, and I made many contacts with it. In the summer of '78 I picked up an HW-8 at a hamfest. The receiver worked ok, but it wouldn't transmit. I paired it up with a Heathkit DX-60 CW/AM transmitter that my dad got from a friend at work. This setup wasn't really QRP, but I had a really good time making contacts with it, even though I had only a handful of crystals for the transmitter, and had to throw a manual knife switch for TX-RX.

An older local ham offered to help me diagnose the issue with the HW-8. After we still couldn't get it to transmit, he nearly gave me a little MFJ 40-meter QRP transmitter and matching VFO. Now I was cooking on QRP. I was pleasantly surprised that it wasn't any harder to make CW contacts using the QRP transmitter than it was using the DX-60 @ 50 watts. I think that's when I was hooked on QRP.

I upgraded to a Drake 2c receiver, and later picked up an Argonaut 509, which has the hottest receiver I think I've ever heard.

In about 1988 I built an HW-9 with the WARC bands add-on. There was a period in the 90's and early 00's when ham radio was placed on the back burner, and the 520, the Drake and DX-60 moved on.

I traded the HW-8 with my childhood friend, Dave, WB3CEG for a 2m HT in the mid-80's. He stored it in a closet for 3+ decades and gave it back to me about a year ago. I spent a couple of nights trying to find the issue with the transmitter again. I touched up some really ugly solder joints, replaced a transistor, and after performing the alignment procedures, got it to transmit! It'll only transmit reliably on 80m, but that was enough to allow me to make my first contacts with it -40 years after I bought it. Success!

In the early 2000's, a friend told me about Elecraft, and I built a K2 transceiver in 2004. That was a fun project, and it's a great little rig. A few years after that, I read about the Appalachian Trail rigs by Steve Weber. In 2010 or so, I built the ATS3-B in an Altoids tin and have been amazed at what that little rig, a piece of wire and a 9v battery pack can do. An interesting QSO I remember with this rig was with Dennis, K1YPP who was using the same rig while actually hiking the Appalachian Trail. He noted it in his book, **Three Hundred Zeros: Lessons of the Heart on the Appalachian Trail.** By that time, Dennis had carried that little rig on his back for more than 2,000 miles!

I've upgraded my "main" HF station several times, with a TS-590SG in the shack today, along with the QRP rigs I've built or bought along the way. The K2 probably gets the most air time, followed by the '590 and ATS3-B. I like to set up outside on the back porch or at a park during the warmer months for some weekend QRP CW contacts. I tend to use the HW-9 in the colder months, for things like SKN and NAQCC activities. I think what keeps me interested in QRP CW is that making contacts is really not that much more challenging than QRO CW, and that experimenting and building equipment and antennas is simpler and less costly at QRP scale. Then there's the portability of QRP operating. I can setup my fishing pole vertical in just a few minutes, connect a small battery and start operating. Tear down is also quick.

If there is a downside to low power operation, it's when an operator is having a hard time copying my signal. I'll usually thank him and tell him we can try again later, rather than making him continue to struggle. This can happen at QRO levels also, but it can seem rude knowing I'm withholding power while someone is struggling to hear me. It doesn't happen often, but I try to keep the other operator's QSO experience in mind.

If you're reading this, I suspect you're already familiar with QRP CW operating, but if you're not, give it a try. It may become your favorite mode, too.

72/73,

Kevin, KE3V



# **NAQCC SPRINTS**

**CURRENT MONTH'S SPRINT:** Our sprint this month will be on October 9, 0030-0230 UTC. That's the evening of Tuesday the 8th here in North America. And remember, **this is our special anniversary celebration sprint with some great prizes being offered**. You can find more information about that on page 3 of this newsletter. Complete information about the sprint can be found at <a href="http://www.naqcc.info/sprint/201910.html">http://www.naqcc.info/sprint/201910.html</a>.

Complete sprint rules and instructions on how to submit your log can be found at <a href="http://naqcc.info/sprint\_rules.html">http://naqcc.info/sprint\_rules.html</a>. 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 <a href="http://naqcc.info/contests.html">http://naqcc.info/contests.html</a>. 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 <a href="http://naqcc.info/sprint\_sked.html">http://naqcc.info/sprint\_sked.html</a>.

**LAST MONTH'S SPRINT RESULTS:** September was not a "banner" month for us with only 87 submitted logs showing 126 participants and 1048 total QSOs. Generally poor band conditions and busy personal schedules were probably the cause of that low showing. (*Personally, this was the first monthly sprint that I have missed in 11 years! - Editor*) Complete sprint results, including some great soapbox comments, can be found at <a href="http://www.naqcc.info/sprint/sprint201909.html">http://www.naqcc.info/sprint/sprint201909.html</a>. High scores can be seen in the tables that follow.

We would especially like to welcome our first-time regular sprint loggers and hope that they will return to participate often: N9OL VE3SIF

**UPDATED SPRINTLOGGER SOFTWARE AVAILABLE.** Ron, AC2C, has just released an updated version (v1.00.05) of his outstanding sprint logging software. Many of the enhancements are geared toward our N3A/# special event operators but there are also some updates that will benefit all users. Ron's program is specifically designed to be used for logging our monthly sprints but it can be used as a general logger as well. The software is available for a number of different operating systems and you can find out more information about it on our club website at <a href="http://www.naqcc.info/sprint\_ac2clogger.html">https://groups.io/g/NAQCCSprintLogger</a>. (The group.io page does require a very non-invasive free membership.)

**2020 SPRINT SCHEDULE NOW AVAILABLE.** The 2020 sprint schedule has been finalized and can be seen at <a href="http://www.naqcc.info/contests.html">http://www.naqcc.info/contests.html</a>. Convenient text file versions of the schedule, customized for each of the four continental US time zones, can be downloaded from <a href="http://www.naqcc.info/sprint\_sked.html">http://www.naqcc.info/sprint\_sked.html</a>. Information about a digital version of the calendar created by K0NIA that is suitable for most calendar apps is also available on that same page.

SWA	SWA STRAIGHT KEY CATEGORY				
Division	1st	2nd	3rd		
W1	WB1GYZ	K1IEE	-		
W2	WA2NYY	KA2KGP	W2SH		
W3	KD3CA	KE3V	AK3X		
W4	WG8Y	K4KRW	K4JPN		
W5	N5GW	K5MBA	WI5H		
W6	-	-	-		
W7	KC7DM	KF7WNS	-		
W8	AB8RL NF8M		WB8LZG		
W9	WB9HFK	K9QEW	KD9EBS		
<b>W0</b> AA0W		NN0SS N8LA (TIE)	NO2D		
Canada	VE9BEL	VE3SIF	-		
DX	-	-	-		

	SWA BUG CATEGORY				
Division	1st 2nd		3rd		
W1	-	-	-		
W2	-	-	-		
W3	K3RLL	-	-		
W4	-	-	-		
W5	NF5U	-	-		
W6	-	-	-		
W7	-	-	-		
W8	AB8FJ	K8NGW	-		
W9	K9DRP	AA9L	N9OL		
W0	W0KFG	-	-		
Canada	-	-	-		
DX	-	-	-		

SWA KEYER/KEYBOARD CATEGORY				
Division	1st	2nd	3rd	
W1	N2CN	KB1M	KC1DVT	
W2	K2ZD	N2ESE	WA1GWH	
W3	KW2A	K3WWP	NR3Z	
W4	KB9ILT	N4MJ	W40EP	
W5	-	-	-	
W6	-	-	-	
<b>W7</b> KF7Z		-	-	
W8	W8 W8RTJ		WB8ENE	
W9	NN9K	AB9BZ	-	
WO	WO K9OSC		-	
Canada	VE3DQN	-	-	
DX	-	-	-	

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

FIRST TIME ENTRANT HIGH SCORE				
KEY	1st 2nd 3rd			
SK	VE3SIF	VE3SIF		
BUG	N9OL	-	-	
K/K	K/K			
SPRINT PRIZE DRAWING WINNER				
AB8RL				

	<b>Current Month</b>	Previous Month	All-Time Record	Record Date
Logs	87	104	217	4/17
Participants	126	143	269	2/13
Total QSOs	1048	1062	3154	4/17
Hour 1 QSOs	592	579	1704	4/17
Hour 2 QSOs	456	483	1450	4/17
20m QSOs	2	179	1232	8/13
40m QSOs	580	854	2203	4/17
80m QSOs	466	29	1417	2/13
Avg QSOs/Station	12.0	10.1	19.3	9/11

**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 <a href="http://naqcc.info/sprint\_dates.html">http://naqcc.info/sprint\_dates.html</a>.

NUMBER OF SPRINTS	<b>M</b> EMBERS
50+	KC7DM WA1GWH NU7T(SK) KB8FE NQ2W WY3H AA7CU N8QY K9OSC KB0ETU K6CSL K9EYT N5GW AK3X K2YGM KC2EGL VE5BCS(SK) N8LA KN1H K4ORD KF7WNS N4MJ WK6L KD3CA AB8FJ N2CN WI5H NF5U
75+	AK3X K4NVJ KB3AAG WB8ENE K4KRW VE3FUJ WX4RM WA8SAN NO2D N0TA WG8Y N8BB AA9L NA4O WD0K K6MGO KA9FQG KQ1P
100+	KE5YUM KD2MX K4JPN K3RLL K1IEE KD0V WA2JSG N4FI W4DUK N2ESE
125+	W9CC W2SH WB8LZG N8XMS K4BAI KU4A NF8M
150+	W2JEK KA2KGP
175+	K3WWP

# **NAQCC CHALLENGES**

**CURRENT MONTH'S CHALLENGE:** Our challenge this month is an alphabet challenge about an interesting piece of radio history - the Alexanderson Alternator. **And since this is our anniversary celebration month, there will also be a great prize drawing with this challenge.** Details about the drawing can be found on page 3 of this newsletter. Complete details for the challenge can be found at <a href="http://naqcc.info/challenges/challenges201910.html">http://naqcc.info/challenges/challenges201910.html</a>.

**NEXT MONTH'S CHALLENGE:** In November we honor our veterans with an alphabet challenge and some information about a very interesting veterans memorial in Anthem, AZ. Details can be found at <a href="http://www.naqcc.info/challenges/challenges/201911.html">http://www.naqcc.info/challenges/challenges/201911.html</a>.

Complete information about our challenges including a helpful tutorial on how to organize your work for an alphabet challenge can be found at <a href="http://naqcc.info/challenges.html">http://naqcc.info/challenges.html</a>. Detailed general rules for our challenges can be found at <a href="http://naqcc.info/challenges\_rules.html">http://naqcc.info/challenges\_rules.html</a>.

**LAST MONTH'S CHALLENGE:** The deadline for submissions for our September Dabbawala Delivery challenge is still a few days away but preliminary results can be seen at <a href="http://www.naqcc.info/challenges/challenges201909.html">http://www.naqcc.info/challenges/challenges201909.html</a> and final results will also be available there shortly after the 10th of the month.

**2020 CHALLENGE SCHEDULE NOW AVAILABLE:** Gary, K1YAN, has planned some great challenges for all of us to enjoy in 2020. The complete schedule is now available at <a href="http://www.naqcc.info/challenges.html">http://www.naqcc.info/challenges.html</a>.

**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 <a href="http://www.naqcc.info/challenges.chedule.html">http://www.naqcc.info/challenges.chedule.html</a>.

Number OF Challenges	Members
25+	W3IQ KU4A K9OSC KD0V WA2FBN WI5H PA9CW NF1U WY3H N1JI VE3HUR G3JFS N1LU KJ4R KD2MX AK3X VE3DQN KA5PVB AH6AX
50+	PA0XAW VE3FUJ NU7T(SK) N9SE
75+	K1YAN
100+	K1IEE
125+	N8XMS W2JEK
150+	K3WWP

# **NAQCC AWARDS**

We have an extensive list of awards that you can earn. Complete details can be found at <a href="http://naqcc.info/awards.html">http://naqcc.info/awards.html</a>.

FEATURED AWARD: WAC SIMPLE WIRE ANTENNA AWARD

This is the classic Worked All Continents award with our usual club twist - you have to do it with CW/QRP and a simple wire antenna. See <a href="http://www.naqcc.info/faqsinfo.html">http://www.naqcc.info/faqsinfo.html</a> for our club definition of a "simple wire antenna." Essentially it's a non-gain type of antenna even though it might not actually be made of wire. The award has endorsements for 2XQRP and QRPp. You can see complete details at <a href="http://www.naqcc.info/awards">http://www.naqcc.info/awards</a> wacswa.html.

#### **RECENTLY ISSUED AWARDS:**

none



# **NAQCC QRS/QRQ 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 Wayne, NQ0RP.

NAQCC NET SCHEDULE					
Net	Local Time	UTC	Freq +/-	Primary NCS	
FarnsWord QRQ Round Table Nets (FRN)	Sunday 5:00 PM PDT 7:30 PM PDT	Monday 0000 Z 0230 Z	5348 KHz ch2 3556 KHz	60m JB, NR5NN (in CA) 80m Rick, N6IET (in CA)	
East Texas QRS Net (ETN)	Monday 7 PM CDT	Tuesday 0000 Z	7068 KHz	Allen, KA5TJS (in TX)	
Midwest QRS Net (MWN)	Monday 7:30 PM CDT	Tuesday 0030 Z	7031 KHz	Bob, W0CC (in KS)	
Rocky Mtn Regional/Continental 20/40 QRS Nets (RMRc)	Tues & Thurs 4:00/4:30 PM MDT	Tues & Thurs 2200/2230 Z	14060/7062.5 KHz	Dale, WC7S (in WY)	
Pacific Northwest 80 m QRS Net (PNW80)	Thursday 7 PM PDT	Friday 0200 Z	3556.5 KHz	Stewart, KE7LKW (in WA)	
West Coast QRS Net (WCN)	Friday 8 PM PDT	Saturday 0300 Z	7062 KHz	Mike, N6MST (in CA)	

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 FarnsWord QRQ Round Table Nets (FRN)
NAQCC FarnsWord QRQ Round Table Nets (FRN)
Sunday evenings 5:00 PM PDT, which is Monday 0000 UTC, on 5348 kHz (Ch 2)
Sunday evenings 7:30 PM PDT, which is Monday 0230 UTC, on 3556 kHz +/60m NCS - JB NR5NN (CA); 80m NCS - Rick N6IET (CA)

FRN Station Reports for September (UTC dates and times)

For several months we were experiencing an "foF2 Rebound" effect around 8:30pm every evening, which often gave us near-NVIS conditions up to and including 40 meters. So we instituted FRN/40 to take advantage of that. Our enthusiastic Polar Bear with the Golden Fist, Rick N7HRK/m, volunteered to be NCS of that net, as he was far enough away in Libby, MT, to hear most of us, even when we couldn't hear each other. PBRick did a great job while favorable conditions lasted.

Unfortunately, that foF2 Rebound has ended, this fall, and the foF2 has been continuing to drop like a stone after sunset, such that 40 meters "goes long" - even longer than 1000 miles, sometimes - in which case not even PBR with his sensitive ears can hear anybody, nor we him using his home brew 40-meter super-resonator mobile antenna.

So we've decided to drop FRN/40 this month. We'll continue to monitor evening band conditions during the fall and winter to see if they merit a revival of FRN/40 in future months during this solar minimum. In the meantime PBRick wants everybody to continue looking for him on 40 meter CW around 7046 kHz in the early mornings and late evenings for a QRQ (or even a QRS) rag chew.

FRN/60, with JB NR5NN as NCS, will continue on its current schedule, meeting at 0000z on 5348 kHz (Ch2), as the foF2 often peaks around 6 MHz about that time and we usually have great NVIS conditions where everybody can not only copy each other, but our signals - even our QRP and qQRP signals - are strong.

Likewise, FRN/80, with Rick N6IET as NCS, will continue meeting at 0230z on 3556 kHz±. This allows ample time for for participants of both nets to have dinner in between and for several of us to check into Rob N6KIX's PARG net at 0300z on 3545 kHz. And we usually still have NVIS conditions at that time (barely).

FRN/60 on 5348 kHz (Ch 2) at 0000z

```
Sep 02 - QNS (8) NR5NN NCS, N6IET, KW6G, K6GVG, W7SAG, K6JJR, KE6EE, N3AIU
```

- Sep 09 QNS (6) NR5NN NCS, KW6G, Al6SL, KE6EE, W6B/N6IET, K6GVG
- Sep 16 No FRN. JB sponsored a portable antenna shootout for his Benicia club, instead.
- Sep 23 QNS (7) NR5NN NCS, KW6G, K6GVG, Al6SL, N6IET, KE6EE, N6KIX
- Sep 30 QNS (6) NR5NN NCS, KW6G, N6IET, KE6EE, Al6SL, W7SAG

FRN/80 on 3556 kHz at 0230z

```
Sep 02 - QNS (6) N6IET NCS, K6GVG, KW6G, KE6EE, K6JJR, N6KIX
```

- Sep 09 QNS (5) W6B/N6IET, KW6G, KE6EE, Al6SL, K6GVG
- Sep 16 QNS (2) Rick N6IET NCS, Charles KW6G
- Sep 23 QNS (6) AI6SL co-NCS, K0DTJ, KW6G, N6IET co-NCS, N6KIX, NR5NN
- Sep 30 QNS (5) N6IET NCS, N6KIX, AI6SL, KE6EE, KW6G

FRN/40 on 7046 kHz at 0330z (cancelled for October)

Sep 02 - QNS (4) N7HRK/m NCS, N6IET, KW6G, K6GVG, K6JJR

Sep 09 - QNS (4) N7HRK/m NCS, KW6G, K6GVG, NR5NN

Sep 16 - QNS (5) N7HRK/m NCS, KW6G, K6GVG, Al6SL, N6IET

Sep 23 - QNS (1) N7HRK/m NCS (band went long)

Sep 30 - QNS (1) N7HRK/m NCS (band went long)

72, 73 and 77, Rick N6IET JB NR5NN PBRick N7HRK

\_\_\_\_\_\_\_

# NAQCC Rocky Mountain Regional/Continental QRS Nets (RMRc) Tuesday/Thursday at 4:00 PM MDT, which is Tuesday/Thursday 2200 UTC, on 14060 kHz Tuesday/Thursday at 4:30 PM MDT, which is Tuesday/Thursday 2230 UTC, on 7062.5 kHz. Main NCS - Dale WC7S (Wyoming)

No Report

\_\_\_\_\_\_\_

#### **NAQCC MIDWEST QRS Net (MWN)**

Monday evenings 7:30 PM CDT, which is Tuesday 0030 UTC, on 7031 kHz +/- Main NCS - Bob W0CC

No Report

\_\_\_\_\_\_

NAQCC East Texas QRS Net (ETN)

Monday evenings 7:00 PM CDT, which is Tuesday 0000 UTC, on 7068 KHz +/-Main NCS - Allen KA5TJS (Texas)

9/3/2019 QNI(1) NCS KA5TJS

Well looks like everyone took the holiday off! I know Terry (KE5YUM) would not be there as he sent me an email that his FT-817 battery had failed and would not charge and he is still in WI.

9/10/2019 QNI(4) NCS KA5TJS KE5YGA N4NN W5WTH

We had some thunder storms before the net but it cleared out but left some QRN. Signals were very good on 7.068 khz. Great to have Pat W5WTH from Austin last night. Have a great week and CU all soon.

9/17/2019 QNI(2) NCS KE5YGA N4NN

I got tied up with a friend and missed the net last night but got an email from Allen (N4NN) that he and Andy had a QSO in my absence. Glade you guys got together and sorry for the no show tonight.

9/24/2019 QNI(2) NCS KA5TJS N4NN

Band conditions were poor tonight. Two other stations tried to check in KE5YGA and K5TSK. Both from AR. but I could not hear them. They were relayed by Allen. Short skip has been a problem with the solar conditions we are having. Hand in there and keep trying guys.

\_\_\_\_\_\_

NAQCC West Coast Net (WCN)
Friday evenings 8:00 PM PDT, which is Saturday 0300 UTC on 7062 KHz
Main NCS - Mike N6MST (California)

No Report

\_\_\_\_\_\_

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)

09-06-2019 PNW QNI (10) NCS KE7LKW/7, KG7JEB, N7KC, AD7BP, WB4SPB, K7JUV/7, K7HZ/7, W7ANM/7, N0DA/7, N7TB/7.

09-13-2019 PNW QNI (7) NCS KE7LKW/7, KG7JEB, N7KC, AD7BP, W7ANM, N0DA/7, NB6M.

09-20-2019 PNW QNI (7) NCS N7KC, KE7LKW, WB4SPB, AD7BP, W7ANM, N0DA, KG7JEB.

09-27-2019 PNW QNI (8) NCS KE7LKW, KG7JEB, N7KC, W7ANM, N6KIX, NB6M, WB4SPB, AD7BP.

LEE N7KC AR N

Stewart KE7LKW, Randy WB4SPB, George WB4SPB

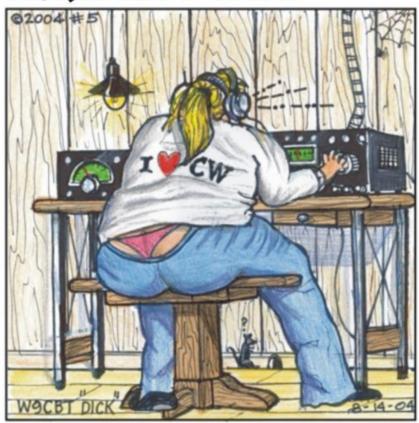
\_\_\_\_\_\_

# **HAM QUIPS**



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 <a href="https://www.lulu.com">www.lulu.com</a>.

## MORSE TIPS & QUIPS



LEARN TO COPY "BEHIND" TO IMPROVE YOUR MORSE CODE SKILLS!

# **NAQCC CHAPTER NEWS**

The North American QRP CW Club currently has seven local chapters - Western Pennsylvania, West Virginia, West Florida, Illowa, Downeast Maine, Long Island, and Florida - 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 Paul, N8XMS.

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 Vice President John, N8ZYA, 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 Paul, N8XMS, to schedule the use of N3AQC.

Chapter Reports Begin On The Next Page

### NAQCC FLORIDA CHAPTER



Items in this section are from the Florida Chapter unless otherwise credited. Questions and comments should go to Steve, WB4OMM.

The Florida Chapter website is http://wb4omm.com/nagcc-fl-chapter.

## NAQCC FLORIDA CHAPTER MEMBER NEWS: September 2019



On Friday, September 20, 2019 the Florida Chapter of NAQCC arrived at another local park. We held our latest "Operation in the Park" at Riverwalk Park in Port Orange, Florida.

Riverwalk Park is split into two sections bordering the Riverside Pavilion on the Halifax River. The north section of the park includes a kayak/canoe/paddle board launch, a new boardwalk, fishing piers, a 12' wide trail, concession stand, and restroom facility. Sandy Point Progressive Sports currently operates out of the concession stand and rents paddle equipment to the public.

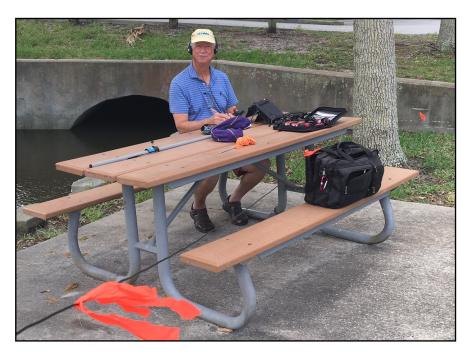
The south section of the park includes a splash pad, playground, event lawn, concession stand, restroom facility, a riverfront promenade area, event stage, picnic pavilions, and a 12' trail way encompassing the park. The concession stand is currently operated by Kona Ice and has multiple food and drink options available to the public.

This trip we had a total of 6 members/3 operators and a guest in our group to include: Steve WB4OMM #5274; Art WB4MNK #5274; John KD4JS #8019; Nikki KM4SBQ #8749; Wally KG4LAL #6278; and Phil NW4X #8927.



Steve WB4OMM #5319

Steve's setup included his Elecraft KX-3 and a ground mounted Hamstick vertical for 20 meters with a Vibroplex Code Warrior Jr and GenLog. Steve worked 1 member ultimately on 20M - Signals were nil for most of the time he was on the air, but he didn't get skunked! Here he is with his "entourage", Nikki and Art!



**Wally KG4LAL # 6278** 

Wally's rig was his usual Yaesu 817, running 4 watts SSB to an off-center fed wire, worked 40 & 20 meters with two contacts to report - the Amarillo Traffic Net and the Midwest Net in Ohio.

Nikki KM4SBQ #8749 helped Steve with his setup/take down.

Art WB4MNK #5274 provided guidance - in something. Can't remember what.

John KD4JS #8019 - As usual, John took care of the QRPSPOTS postings for Steve. And brought a new toy for Steve to play with - then he gave it to Steve! Wow! Thanks John!

Phil NW4X #8927 stopped by to visit and talk QRP/CW......

WX turned out to fine! A great park!! A great time!!!

Many thanks to those who listened for us and helped make this another successful NAQCC-FL event!

See you in next month!

**NEXT MONTH'S SCHEDULED EVENT:** 

Friday, October 18th, 2019 starting at 10:00 AM EDT

Sunrise Park (1135 Riverside Drive, Holly Hill, FL 32117)
Park webpage with directions: <u>DIRECTIONS TO PARK AND INFO</u>

WHO: "The Usual Suspects" – Art WB4MNK, Steve WB4OMM, Rick AA4W, Don K3RLL, Wally KG4LAL, Bob W2EJG, John KM4JTE, John KD4JS, Phil NW4X, Nikki KM4SBQ, John W2IV, Doug W4DBL (and whoever else can make it).

Visit our Web Page:

http://wb4omm.com/naqcc-fl-chapter/
Look for our announcement!
72/73 to all – Steve WB4OMM, #5913 - NAQCCFL@yahoo.com

## 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 at https://www.facebook.com/groups/967110089994401/.

## NAQCC-WFL Event Anclote Park, Sept 21, 2019

### Attending:

- 1. Ron, N9EE (Xiegu G90 and FT817 w/40m Windom)
- 2. Larry, KR4X (FT817 w/Buddi-Stick)
- 3. Tim, WD8MVU
- 4. Frank, KK4DYF
- 5. John, KK4ITX
- 6. Don, KA2KDP

### Logs:

## Ron, N9EE (Xiegu G90 and FT817 w/40m Windom)

, .			
TIME	CALL	FREQ	<u>COMMENTS</u>
1034	WIOWA	7.045	
1037	K2DSW	7.041	WAR
1137	K2DSW	14.040	WAR
1207	SM3U	14.013	Sweden
1213	NG7A	14.038	Iowa QSO Party, LIN
1216	WB2RPW	14.029	NJ QSO Party, Monn
1219	W7DX	14.034	QSO Party, KING
1225	W0FLS	14.048	Iowa QSO Party, DAL
1234	KC1XX	14.045	NSQ, STL
1240	C02RQ	14.024	Cuba
1257	SM3A	14.012	Sweden
1316	WIOWA	14.038	CAS
1319	K7SBN	14.046	SNO
1322	KE2D	14.051	MRC
1324	W6OAT	14.035	
1328	W7DX	14.045	QSO Party, KING
1333	SA2NA	14.009	Sweden
1339	K3PA	14.039	WAR

Had a great time at Anclote Park in SW Pasco, Florida (on west coast) on the Gulf of Mexicao. I worked with my G90 and it worked very well with it's band scope aiding in finding stations. There were a few QSO parties running, NJ and Iowa and one in Sweden, lots of good activity. Most was on 20m, little on 40m but it died around 10:30AM.

### Larry, KR4X (FT817 w/20m Buddi-Stick)

All times are EDT and the band worked was 20 meters 1005 SM5COP (Sweden) 599/599 (typical contest exchange) his nr. was 074 my nr. was 001 1050 SM2U (Sweden) 599/599 his nr. 320 my nr. 002

Once again I enjoyed the couple of hours we spent working QRP in the park. All QSOs were made on 20 meters CW using my FT-817 at 5 watts with my Buddistick Vertical antenna. All times are EDT: Overall the band conditions were okay very few stations heard were what I consider loud. There was a European contest going on that captured most of the band activity. I did manage to work two of them, lots of other signals heard but they were all chasing Sweden











## **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.

No report available.

## **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 <a href="https://sites.google.com/site/naqccillowa2/">https://sites.google.com/site/naqccillowa2/</a>.

No report available.

## **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.

Taking a break until the fall.

## **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.

No report available.

## **NAQCC WEST VIRGINIA CHAPTER**



Items in this section are from the West Virginia Chapter unless otherwise credited. Questions and comments should go to John, N8ZYA.

The chapter's web site is at <a href="http://n8zyaradioblog.blogspot.com/">http://n8zyaradioblog.blogspot.com/</a>.

No report available.

# MEMBER SUBMISSIONS



This section is a forum for you to tell other members what you've been up to on the ham bands or to submit a short article dealing with some aspects of CW and QRP operation or equipment. Just about anything that would be of interest to our members would be welcomed. Send your items to our News Editor Paul, KD2MX.

DISCLAIMER: Any views expressed in this section are those of the submitting member and may or may not be those of the NAQCC or its officers.

From Dejan, SA3BOW, #6935 —

Simple splitters for counter weights (counterpoise).

There is a limited number and combinations of simple antenna systems worth while to hoist when operating portable. I almost always use antennas with a fixed ladder line in one end. The far end of the antenna can be joined with an extra length of wire. And I got one wire for the ground system. The far end of that wire can also be joined with an extra length of wire. But there is more! I also carry a spare antenna wire to be used as an end fed wire directly to my ATU. You guessed it: That wire can also be joined with some extra wire.

Improving the antenna or possible feed line greatly is challenging. But the other end of the antenna system can easily be made to work better. One just ad more wire to the ground system/counterweights/radials.....call it what you want.

It is hard or impossible to calculate how many radials that pay off. But sound guestimate is that two are better than one. Further guesswork hint that the biggest improvement is to go from one to two. To do that I have made the little splitter in the photo. (To make it flex I used mil grade double braid coax.) Depending on all the ifs and buts on the operating spot I can split the ground wires directly at the ATU or way out. To improve this a little bit extra I also have a very light dink-a-doo to branch out and end a wire. A ground wire for QRP can be thin and light. Easy to carry, easy to stretch out on the ground (or lifted up a bit!), easy to be coiled up again. This colorful one is made from 5 meter of CAT cable giving 4 x 2 wires. Handled with care CAT wires last a long time. Just coil it with a gentle bend. Here I am again using the very light connectors used in all my current /P antenna systems.

Thoughts about wires on the ground:

If I use easy to see wires I follow the rule of hams being considerate.

If I reuse wires as far as possible I waste less with finite resources.

72, Dejan de SA3BOW

Pictures on next page.





# **NAQCC CLUB INFORMATION**

#### STATEMENT OF PURPOSE

From NAQCC President Paul Huff, N8XMS

Amateur radio has something for everyone. SSB, FM, AM, the digital modes, and QRO power levels all have their place in this great hobby and we certainly recognize the importance of these modes as well as the enjoyment that they give to many. But for a growing number of hams the challenge of "doing the most with the least" makes QRP (and QRPp) CW operating the greatest thrill available in amateur radio, and the North American QRP CW Club exists to promote this exciting facet of the hobby. As part of our focus we also encourage, but do not limit operators to, the use of simple wire antennas.

The NAQCC provides numerous opportunities for hams to enjoy QRP/CW operating. For contester types we have a popular monthly 2-hour sprint that runs at relatively low CW speeds and at a fairly relaxed pace. Three special sprints also take place during the year for 160-meter and QRPp 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 homebrew 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. 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 our club website and we are more than willing to try to answer any questions about QRP and CW 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.

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 <a href="http://www.naqcc.info/">http://www.naqcc.info/</a>. Inquires can also be sent to

Club President Paul Huff, N8XMS 9928 Eckles Livonia, MI 48150 USA

Additional contact information can be found on the next page.



NAQCC CONTACTS				
NAQCC President Newsletter Editor	Paul - N8XMS	paul142857@gmail.com		
NAQCC President (Beginning January 2020)	Steve - WB4OMM	sszabo1@cfl.rr.com		
NAQCC Vice President West Virginia Chapter	John - N8ZYA	jspiker58@gmail.com		
Downeast Maine Chapter	Jeff - KA1DBE	ka1dbe@arrl.net		
Florida Chapter	Steve - WB4OMM	sszabo1@cfl.rr.com		
Western Pennsylvania Chapter	John - K3WWP	jsk3wwp@windstream.net		
Illowa Chapter	Tim - N9BIL	n9bil@arrl.net		
West Florida Chapter	Ron - N9EE	n9ee@tampabay.rr.com		
Long Island Chapter	Howard - WB2UZE	wb2uze@yahoo.com		
Help For Beginners	Brion - VE3FUJ	ve3fuj@wightman.ca		
Member Submissions Member Spotlight	Paul - KD2MX	kd2mx@arrl.net		
Facebook Page Manager	Jerry - K4KBL	digilink@gmail.com		
NAQCC CW Nets	Wayne - NQ0RP	wayne.dillon@gmail.com		

NOTE: These email address are not automatic links. They are given here in graphic form to avoid harvesting by spambots.

### 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 <a href="http://www.naqcc.info/">http://www.naqcc.info/</a> should be included.