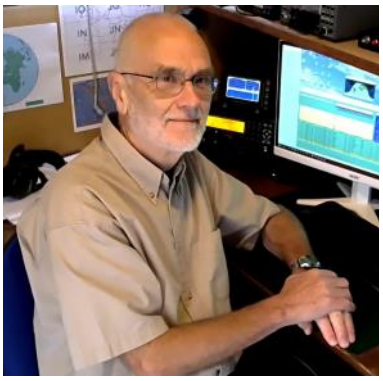
Solid Copy

The CW Operators Club Newsletter
January 2023 — Issue 156

CQWW From 3B8M

K0AV recounts the strategy and activation of 3B8M on Mauritius. See page 21.

President's Message



It's not been a great few weeks for me after injuring my back at the end of November. According to the physiotherapist it's the femoral nerve which is very painful and has restricted my mobility when at times I've not even made it to

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CWops "CWT" 1 hour 'tests
Every Wednesday at 1300z and 1900z
Every Thursday at 0300z and 0700z
Exchange: name/number (members)
name/SPC (non-members)
Avoid DX Pileups!

CWO Mini-club callsign web site:
http://cwomc.org

CWops "neighborhood": Look for CWops on 1.818, 3.528, 7.028, 10.118, 14.028, 18.078, 21.028, 24.908, 28.028, 50.098 "and up"

CWops Officers and Directors
President: Stew Rolfe, GW0ETF
Vice President: Peter Butler, W1UU
Secretary: Jim Talens, N3JT
Treasurer: Craig Thompson, K9CT
Director: Theo Mastakas, SV2BBK
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WebGeek: Dan Romanchik KB6NU
Newsletter Editor: Dick Strassburger, N9EEE

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my garden shack. Recovery is depressingly slow. My air time has been limited and participation in CQWW CW, ARRL 10m and sessions with GW5WS in the RSGB/ARRL Transatlantic Test event has taken a hit. It has however given me cause to think about the potential risks of sitting in front of a radio/keyboard for long hours without sufficient thought given to seating, operating layout and regular breaks to stretch and loosen up. Even the young, fit and healthy would do well to consider this to avoid storing up problems for the future.

In the middle of December we received notification from Ward Silver NØAX that the Yasme Foundation were to present their Excellence Award to CWops. Yasme is a worldwide not-for-profit foundation whose aims are supporting projects around the globe which help amateur radio grow and flourish. They are held in high regard and we are indeed proud and honoured to be selected for the award. The announcement on their website (www.yasme.org) begins:-

CW Operators Club *(CWops) in recognition of technical, operating, and organizational achievements in and contributions to amateur radio. It recognizes the contributions to amateur radio by CWops in support of training and on-the-air activities that promote Morse/CW operation, leading to more interest in and sustained CW activity around the world.*

Clearly it's a recognition of the continuing influence of CWops which began when a small group of CW operators got together with an idea way back in 2009. The rest, as they say, is history. You can read the letter from Ward later in this issue and I would highly recommend looking at the Yasme website and the intriguing history of this pioneering group of ham radio operators. It's truly inspiring.

The letter from Yasme refers to the CWops *"emphasis on the entire spectrum of operating from just learning to highly skilled".* I would like to think this is also a nod towards our inclusivity of all forms of CW operating – 'as long as it's CW you're very welcome'. Occasionally it seems our groups.io reflector might not give that impression especially to newer members with it's regular flood of contesting posts following the CWTs or one of the big international contests. It is true that contesters as a whole probably like nothing more when not actually contesting than to be **talking** about contesting but this can be exaggerated. I just looked at cwops.groups.io and (on a Wednesday just prior to the CWTs) had to scroll down a page and a half before a seeing a contesting post except for a solitary advisory about the latest topslist file. Topics included the Crozet DXpedition and low CW activity, is there a such a thing as a single dit?, Solid Copy articles, signal reporting, group display naming and the 'Bomb Cyclone in North America'. The reflector is there for all members to post about anything CW or CWops. Naturally there will be a geographical emphasis on posts from the US because that is where the majority of members live. There will also be some individuals who enjoy such a public arena more than others, but we would encourage anyone who has anything to say to feel free to either raise a new topic or respond to an ongoing one. It's everyone's reflector and should be the heartbeat of the club as a whole.

Just occasionally a topic arises that may produce responses that would benefit from some further thought before pressing the send button. An example was a recent question (I think from a new joiner) querying why we don't include the WARC bands in the CWTs. Not the first time this has been raised and just as previously produced the majority view of 'No Way!' There was little

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explanation to help someone who perhaps was not familiar with the background of the WARC bands to understand the strong feelings and the poster felt put down. I hold my hand up as I jumped in with a very brief contribution way down the thread which I realise may have seemed somewhat blunt. It certainly wasn't the intention so it's a lesson learnt and I'll take more care in the future. In the meantime let's make the effort to widen out the reflector and make it a truly club-wide forum for all thoughts and opinions relating to the club and CW. Happy New Year…!

73, Stew GWØETF, President (CWops #919)

SC

Editor's Notes

by Dick Strassburger, N9EEE

Ah yes, January is the month of New Year's resolutions that we make for prosperity and health. Now that I am retired and full-on into Ham Radio, I have refocused my New Year's resolutions into a bucket list of things I'd like to accomplish in 2023. I'll leave out my kayak adventure planning and POTA outings and just give you the CWops version:

- Earn a Bronze Medallion for operating in the CWTs (50 pts = 50 CWT sessions of minimum 10 contacts = ~ 1 CWT per week). That's doable. Hmm. Maybe I could reach Silver by working a few more.

- Place in the top 10 for QTX exchange. At the current pacing, I would need to make about 194 ragchews lasting at least 20 minutes each (194 QSOs = 16 - 17 per month = 3 - 4 per week). I'll have to create a cheat sheet of topics to make those 20 minutes fly by.

- CW Open. I checked that box this past year on Team WisKey. Given our propensity for awkward activations, I think the crazier the anecdote the more noteworthy the performance. Maybe we'll homebrew our own keys using nails or operate left-handed.

- Continue the fine trend of publishing interesting feature stories about our world of Morse Code operating in an amateur radio environment. It's interesting to me that an operating mode over 100 years old is still so alive with passionate operators that we have as much or more material to publish than does the arguably hottest trend in ham radio, digital. But we do. Keep pounding, paddling, or keying…and writing about it.

How about you? Have you made your New Year's resolutions toward CWops programs? Think about becoming a CW Academy Advisor. Or get in the chase for CWops Operating Awards by working other members.

73 and Happy New Year!

Dick N9EEE, (CWops #3113)

Editor, *Solid Copy* (SolidCopy@cwops.org)

CW Operators Club Financial Report

December 31, 2022

Craig Thompson, K9CT, Treasurer (CWops #276)

Bank Accounts	
Bank of America -CWops	4,235.69
Hometown Community Bank	1,098.51
PayPal - CWops	20,655.98
TOTAL Bank Accounts	25,990.18
Investment Accounts	
Asset Mark Trust Company	166,955.88
OVERALL TOTAL	192,946.06
INFLOWS	
Club Dues	31,185.93
TOTAL INFLOWS	31,185.93
OUTFLOWS	
Awards	11,669.28
Donation	205.00
Marketing	3,121.10
PayPal Network Fees	270.42
Postage	263.65
Website	249.98
TOTAL OUTFLOWS	15,779.43
Overall Total	**15,406.50**

Notes

1. Investment account fell approximately 14% from its 2022 peak
2. We reserve $210,640 for Life and 5 Year memberships.
3. We are about $17,000 under our reserve currently.
4. We have cut some expenses and increased dues to counter the regression in our investment account for 2023.

The YASME FOUNDATION

PO Box 20578 • Castro Valley, California 94546

A nonforprofit corporation organized to conduct scientific and educational projects related to Amateur Radio

www.yasme.org

December 15, 2022

To the CW Operators Club (CWops)

Officers, Directors, and Members

On behalf of the Board of Directors of The Yasme Foundation, I am pleased to inform you that the Board has selected CWops to receive the Yasme Excellence Award.

This Award is made in recognition of technical, operating, and organizational achievements in and contributions to amateur radio. We wanted to recognize the contributions to amateur radio by CWops in support of training and on-the-air activities that promote Morse/CW operation, one of our proudest traditions. Your emphasis on the entire spectrum of operating — from just learning through highly skilled —has obviously been successful, leading to more interest in and sustained CW activity around the world.

The award consists of a cash grant of $500 USD and an engraved crystal globe. The monetary award may be used in any way you feel appropriate, and the funds will be transferred to you by our Treasurer, Rusty Epps, W6OAT. Information about the Yasme Excellence Award and past recipients can be found under the "Yasme Excellence Awards" tab on the website, **www.yasme.org**. A press release announcing the Yasme Excellence Awards will be distributed and posted on our website. On behalf of the Yasme Board, please accept my congratulations for your continuing contributions to amateur radio and for the recognition by way of the Yasme Excellence Award.

73, Ward Silver, NØAX, President

The Yasme Foundation Board of Directors:

Ken Claerbout, K4ZW, Director, Vice-President, and Secretary
Rusty Epps, W6OAT, Director and Treasurer
Martti Laine, OH2BH, Director
Fred Laun, K3ZO, Director
Hans Blondeel Timmerman, PB2T, Director
Robert Vallio, W6RGG, Director
Marty Woll, N6VI, Director
James Brooks, 9V1YC, Director

News and Notes

Duncan (Mac) Fisken, G3WZD

We regret to report that the following Member has become a Silent Key

Ola Noren, SM0CUH / SE0C #61737 on 25th November

A condolence card has been sent on behalf of CWops

From the News & Notes editor

Following the forced use of a temporary email address, please note that all items for News & Notes should henceforth be sent to newsandnotes@cwops.org – this address is embedded in the link above.\

Jenna, N4JEH #3203 I hope everyone had a wonderful Christmas, wherever you may be! If you were wondering what all that noise on 14.031 on December 28th's afternoon was, I will tell you that a spaghetti of a ragchew was reaching from NM all the way to GA, lasting 2 and a half hours. Not minutes. Hours. It was with a dear friend of mine (and fellow CWops member), FD, KT5X #58. That QSO holds the record of the longest QSO I have ever had in my entire 10 months as a dedicated CW operator. We were running about 28 wpm, and I learned a lot about old Morse and railroad telegraphy. We talked about everything from FD's beautiful QTH to bugs to the Golden Telegraph key to weather and everything in between! Near the end, I had the pleasure of meeting KF7E, and we had a nice group QSO going. All this to say that nothing in CW has failed to amaze and interest me as a young CW operator. Thanks to CWops, for I don't think I would be where I am in this hobby today without CWops! Well, guess that's all from the little radio shack in GA. Catch you on the air. Oh, by the way, if you hear a CW blurb calling near 14.025/7.025 MHz, that's probably me... :)

Chuck, WS1L #2411 December was a better month than the previous ones, as my health continued to improve. My beam feedline continues to give problems, but any spell of warm weather should allow for feedline replacement. Perhaps in the spring I can replace the trap dipole with one for 80 meters alone and get a bit better bandwidth. An inverted-L for Top Band is on the wish list before next winter as well.

Stew, GW0ETF #919 I thought I'd try out my K2 in some RSGB/ARRL Transatlantic Test pile-ups with GW5WS last month. I bought it off a UK ham I know as a bare bones K2/10 and upgraded it to contest grade. I can run legal power with my Gemini amp which needs 10 watts for 1kw out.

The K2 is the quietest receiver I've ever used. I can instant switch between it and my K3 and at equivalent signal audio levels there is no audible background noise, you could swear it isn't powered up. I know it's not deaf - my XG-3 signal source produces by and large the same S-meter and audio levels on both K3 and K2.

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CW signals on the K2 seem slightly 'harder' and more distinct than the K3 although I'm never going to be able to separate half a dozen zero-beat cluster callers like some can. I have to say I think it's ironic I can't get parts now for my #145 K3 if I ever need but I can order a complete K2 kit anytime. Anyone tested a K2 alongside a K4?

Marko, N5ZO #1224 In October-November 2022 I made a 7-week trip which included CQ WW DX contest operations from Thailand and Western Australia. Shortly after I arrived in Thailand Covid got me, but fortunately I had very mild case and was able to already recover for SSB contest from E2A where we operated in Multi 2 category and were able to set new zone 26 record. I was also able to get on one CWT with my new Thai call HS0ZPP. My XYL Ariadne then flew to HS and we spent about 10 days in Krabi at nice beach resort and few more days in Bangkok. She then flew back to California, and I travelled to Perth, Australia where I operated the CW WW DX CW contest with call VK6N in SOAB category. I also got on for couple CWTs with club's other call VK6ANC. I have operated CQ WW DX contest now from 35 different CQ zones so there is just 5 more to go to work them all.

(N&N Editor's Note: That is an awesome achievement, Marko. Good luck with activating the remaining 5 zones!)

Group picture from E2A includes several CW Ops members, rear from left to right: LA7JO, SP3LPG, N5ZO (#1224), VE3LA, K0BJ, DL3DXX (#1164), E29TGW (#3285), front: E20NKB, E25KAE (#3284), E21EIC (#264), missing from picture HS3PIK, HS4RAY.

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Steve, K1RF #3003 Revisiting The Off-Center Fed Dipole**;** I've always been a fan of low cost, simple to construct, multiband wire antennas. At my QTH, I use an 80-meter End Fed Half Wave antenna for my primary antenna at 100 watts at my relatively low elevation in Norwalk CT with the antenna about 30 feet above ground level and do fine in the weekly CWOPS contests. More recently, I have developed an interest in Off Center Fed Dipoles (OCFDs) by joining the groups.io OCFD group. The evolution of the original Windom Antenna to today's OCFDs has a long and stored history. The original Windom design had a single wire offset feeder which radiated. Later designs with different feed arrangement are strictly not Windoms, though the name has stuck and forms a kind of "brand" like G5RV. The original antenna evolved to ladder line or open wire feeders, and later to coax with a balun between antenna and feedline for matching and common mode high impedance choking.

N5ZO operating CQ WW DX CW contest from VK6N.

This short article cannot possibly address all the important technical details so I will try to summarize what works well. For many years, the 80-meter OCFD used a 33% split for the feedpoint. That provides excellent performance on 80, 40, 20, and 10-meters and has relatively constant impedance for those frequencies. It is typically fed with a 4:1 or sometimes a 6:1 balun for impedance matching. While this antenna is still quite popular, it is not designed for 15-meters which turns out to have a high impedance. Hams being experimenters try to use them on 15-meters anyway with their wide range antenna tuners. Unfortunately, this results in high voltage on the antenna side of the balun and causes severe stresses and likely damage to the balun – not recommended.

80m OCFD: "Typical" SWR by Band, by Feedpoint Split

Feed Point	80	40	30	20	17	15	12	10
20.0%	*		4:1		26:1			
29.3%	*		9:1				10:1	
29.7%	*		12:1				6:1	
33.3%	*		26:1			17:1		
SWR:		<2:1	<3:1	<4:1	<7:1	>7:1		

Values shown are approximate, and vary from QTH to QTH.

DJ0IP *ATU required to cover the whole band. ¦ Modelled for 200 Ω 3-JAN-2023

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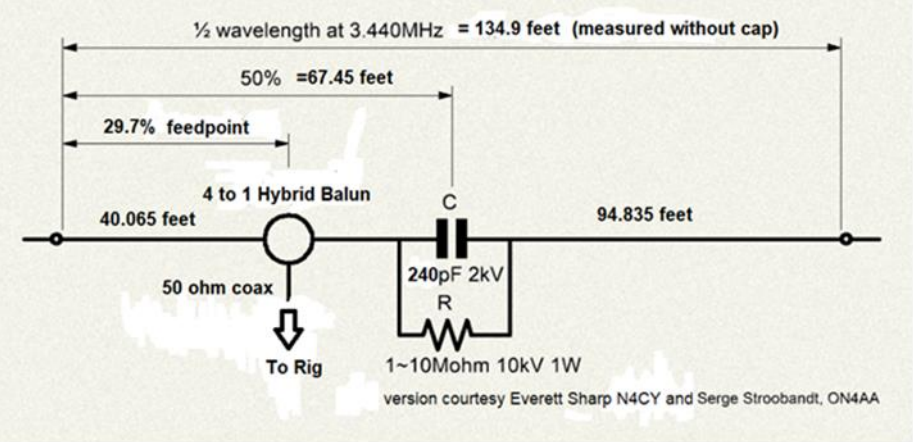
Over the last decade or so, modern simulation tools and much additional testing established a multitude of different feed-point splits which allow operation on 15-meters as well as some of the WARC bands, depending on the feed-point. Rick Westerman, DJ0IP, who developed the Aereal-51 line of OCFDs (sold by Spiderbeam) offered the following comments: "The sweet spots have been known for almost 8 years now. It depends on which bands you want to use it on.

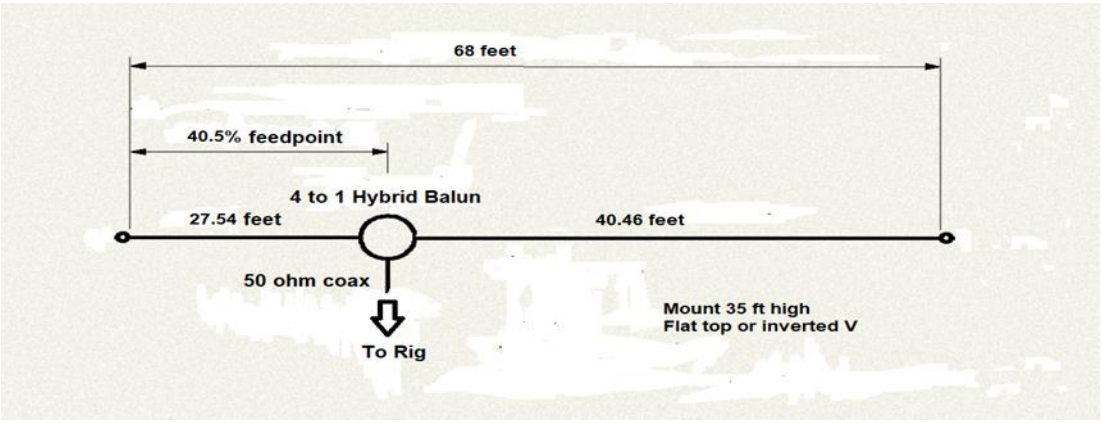
Further, Rick stated, "Use either 20% or one of the two 29% feed-points. I have personally built about 20 of the ones that use the 29.7%, hung them in many different locations, with various lengths and angles of the inverted V. They ALWAYS work on those 5 classic ham bands. Most of the time I don't even need an antenna matchbox."

The other critical point is the balun. The recommended one is known as a hybrid balun, which consists of a 4:1 Ruthroff voltage balun feeding the antenna cascaded with a 1:1 Guanella balun for good choking or reduction of RF current flowing on the outer surface of the coax. When that happens, the coax has become part of the antenna, skewing many of the antenna's characteristics, including resonance. Worse yet, the characteristics then change with changes in length of coax. A 4:1 Ruthroff balun has little choking. A 2-core 4:1 Guanella balun provides choking but only half the amount of a combination of 4 to 1 Ruthroff and 1:1 Guanella for the same style toroid used in both 1:1 and 4:1 Guanellas.

Example of a good 80-meter OCFD. Note: the cap raises the resonant frequency on 80 meters. Use a doorknob cap or 3 paralleled ceramic high voltage "blue caps" from eBay. 240-300pF OK. Changing cap value can move 80-meter resonant point as preferred. None ~ 3450 KHz, 500pF ~ 3600KHz, 300pF ~ 3700KHz, 100pF ~ 4000 KHz



Example of a good 40-meter OCFD is shown below:



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For ready-made OCFDs that come in different power levels with good hybrid baluns, I would recommend antennas from Aereal-51 sold by Spiderbeam (U.S. rep is Vibroplex), or Palomar Engineers for ready-made 1 to 4 hybrid baluns.

References:
Multiband HF Center□Loaded Off□Center□Fed Dipoles Serge Stroobandt, ON4AA
Join Groups.io OCFD group for more info.

Jack, W1WEF #48 After a successful build of my automatic antenna switch, I decided to make a few minor changes. I tore apart "build 1" and rebuilt it in a nice new plastic project box that was sitting on the shelf. Not a good idea! Due to the lack of shielding, when I fired up the amp, RF got the best of it and caused a relay in my antenna switch to chatter, rapidly switching antennas, two at a time resulting in my AL1500 failing. While the amp is still out for repair I started "build 3" in the original metal box.

You can read about "build 1" in the Jan 2023 NCJ available free online to ARRL members.

(N&N Editor's Note: That's a very neat build, Jack!)

Chris, KF7WX #3040 Happy new year dear CW colleagues! I was doing some housekeeping in the shack this morning when I happened upon my first CW key. I purchased this at Radio Shack in Duluth, MN, sometime in the 70s. I'm pretty sure the asking price was around $10, and I recall thinking that was robbery. Part of my old callsign, N0EOT is still discernible on the wood base. Now I see these selling for well over $100. I should have invested in these instead of the stock market.

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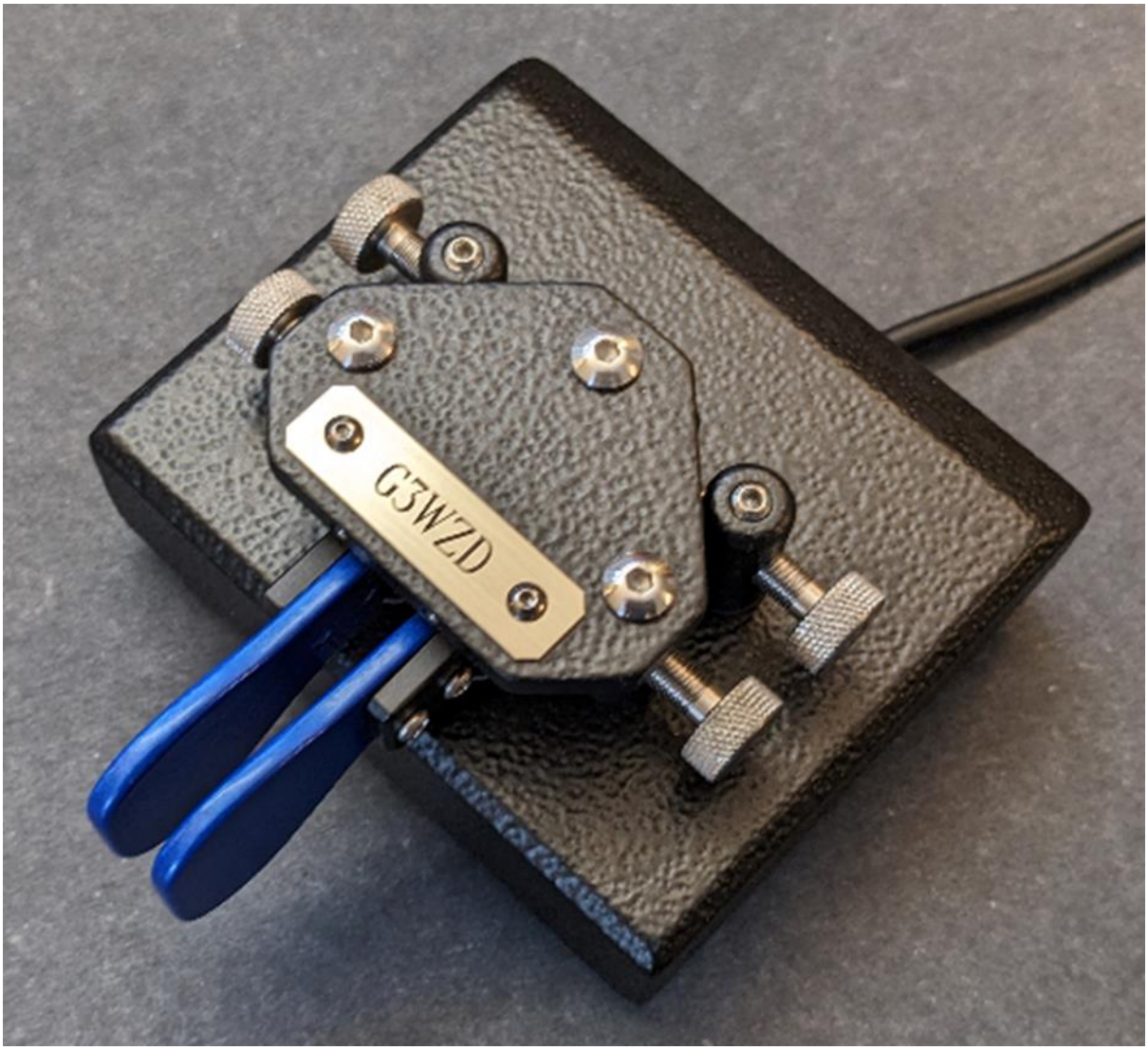
Duncan, G3WZD #1979 Finally, two items from me. Firstly, this BBC news item entitled 'How a secret message in a Colombian song gave hostages hope' is interesting as it recounts the story of how a message of hope in Morse Code was embedded in songs broadcast to hostages held captive in Colombia.

Secondly, I felt compelled to buy myself a Christmas gift and decided a new paddle was appropriate. Having heard lots of good things about N3ZN keys, I decided on the ZN9+ dual lever paddle. I was hoping to post a picture of my new 'toy' in my shack with some comments about it in operation. Sadly however, UPS managed to destroy it in transit, so the photo below is a pre-shipment pic. Happily, Tony N3ZN will ship me a new key at no cost so I am hoping to be able to report on it in the February News & Notes.



***73 ES HNY, Duncan* G3WZD** (CWops #1979)

Dayton Hamvention®
Sponsored by Dayton Amateur Radio Association Since 1952

OFFICIAL ANNOUNCEMENT OF THE CWOPS ANNUAL DINNER ON MAY 18 AT THE DAYTON HAMVENTION 2023

For many years our annual Hamvention CWops dinner was held at the familiar Spaghetti House in Dayton, but we have now changed the venue. It will be held instead at the conveniently located Rona Banquet Hall, 1043 Rona Parkway Drive, Fairborn, OH 45324. The new location is only a few minutes from the Hope Hotel and Conference Center. By this change we will have more indoor space, easier parking and our own food caterer. During dinner, we will have our usual interesting presentations and updates, with lots of opportunities for chatting and shaking hands with folks you have only met on the air. It is the CWops social event of the year!

Note that the Rona Banquet Hall will be ours from 10 a.m. until 11 p.m. on Thursday, May 18, meaning we will have an opportunity to hold meetings, discussions and even just hang-out before the dinner. Our buffet dinner will commence at about 7 p.m. (No alcoholic beverages will be available.) W1UU will orchestrate the pre-dinner meetings and discussions. Anyone with ideas on topics should contact Peter, W1UU.

The cost of the dinner is $36/person, inclusive of the buffet meal, facility rental and soft drinks, well below the meal charge at the Hope Hotel. You may make your reservation now by going to https://cwops.org/contact-us/events/cwops-2023-hamvention-dinner/#dinpay to submit your payment. W1VE, Gerry, will manage the list of attendees and track payments.

It is not too early to reserve your seat at this great event!

See you at Dayton!

73,
Peter Butler, W1UU
Jim Talens, N3JT

How We Were

Hank Garretson, W6SX

AE0Q, Glenn Pladsen, CWops #2878

Glenn as WA0VPK in 1969.

Note the back-to-back J-38 paddle. How many of us did that way back when?

Glenn's life and ham life are fascinating. Glenn tells it much better than I could. See https://radioandtravels.blogspot.com/2020/07/ive-finally-written-about-what-i-did-on.html

Thank you Glenn.

Please, send your How We Were picture(s) and story to w6sx@arrl.net. Note: How We Were doesn't have to be ancient history. If you were first licensed five years ago, send me your How We Were picture.

CW Exuberantly,

73, Hank W6SX (CWops #61)

A Haptic Vibrational Device to Help the Hearing impaired Decode CW

Howard Bernstein, WB2UZE (CWops #1361)

As we age, our physical abilities begin to diminish in varying degrees for each individual. Where some may have sight reduction or physical movement limitations, others may experience hearing reduction. Where this becomes a concern to a CW operator is the ability to hear and discern tones within the various noise thresholds that are inherent in HF operation.

The Long Island CW Club has sponsored the development of a device that permits those with hearing impairment to continue enjoying the hobby with an alternate means of discerning CW transmissions. One of the main tenants of the Long Island CW Club is to be able to give back to those that are not as fortunate as the majority of us. With that in mind, a dedicated group with over 2 years of hard work, created a haptic vibrational device we hope will be a boon to those with hearing impairments and also add to the CW experience of those with normal hearing. This unit was inspired totally by charitable concerns to give back to the amateur community and is not a commercial venture and was priced to be able to recover costs. As we all know, many of our CW operators are now over 50 and with age comes hearing loss. We should not lose our CW ops or potential new ones because of such disability.

Here is a rundown of what this device is all about:

What was created: A haptic vibrational device with LED lights to deliver decoded CW to palm of the hand. The purpose is to give those with hearing impairments a vibrational sensation of CW to the hand, to facilitate and compensate the decoding of CW. This device will also be an assist to those with normal hearing because it can create alternate white matter pathways to the brain combining aural and vibrational cues for learning and decoding CW. This device is patent pending and took an inordinate amount of research, development and testing to perfect.

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Demo video and testimonials: Are now located on the LICW website with this link: [CW for the Hearing Impaired - Long Island CW Club]

Recognition of individual effort: Special thanks go out to the following individuals

Hal WA2AKV for coming up with the initial idea and prototype, Mark KE8MJH for building the second generations, Michael KE8AQW for technical advice and planning, Bob K3ZGA, Dave VK5PL, Laura KO4DFJ. The device was re-engineered by Bob WO6W and spearheaded by Cathy W4CMG. Many of these people are members of CWops. Rob K6RB gave valuable assistance with the patent application.

If there are any members of CWops interested in this unit, please contact LICW at this email address: info@longislandcwclub.org

We thank CWops for allowing us the opportunity to write about this unit in *Solid Copy* and we hope the device will help many in need.

(Editors note: there are many impressive testimonials on the LICW website. I also received a couple of unsolicited testimonials from CWops members who encourage CWops members become aware of this device as an aide to continue to enjoy the hobby.)

SC

My Experience With Streamdeck

Ken Tucker, WF6F (CWops #2386)

Setting up the TS-890 for casual DX'ing has been getting more and more complicated and time consuming. First of all, booting up the Windows computer may, or may not, go well. Particularly on Update Tuesday. But once past that, I would have to manually start up DXLab apps, VE7CC and N1MM. Usually, after about 5-10 minutes of diddling with the computer, I was ready to go searching for some good DX.

Turns out that DXLab has some excellent automation features for starting other apps before it actually starts, as well as running special apps when it shuts down. Using these features, I can now automatically start VE7CC first, then N1MM, and finally DXLab itself. This, in itself, was a major improvement in my casual DX'ing. Then I found out about Spot Collector's Filters and learned how to look for only CW stations. Then rank these stations by probability of connecting, etc. This was getting to be real fun.

But more new problems. Navigating between Spot Collector, Commander, and N1MM while tuning for Split operation was a challenge. I can't tell you how many times I found a perfect Split slot to send my call to some rare DX only to realize my Winkey focus was not on N1MM and I wasn't transmitting. Frustrating.

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So, long story short, I have always been on the lookout for ways to improve this process.

Along came Elgato's Streamdeck. I really liked the idea of pushing a button and having a bunch of tasks done all at once. The Streamdeck box provides the buttons – lighted ones at that – and some barebones software to get things going. Well getting going wasn't that smooth. The learning curve is steep and long but well worth the effort. But I am amazed at the functionality of this approach.

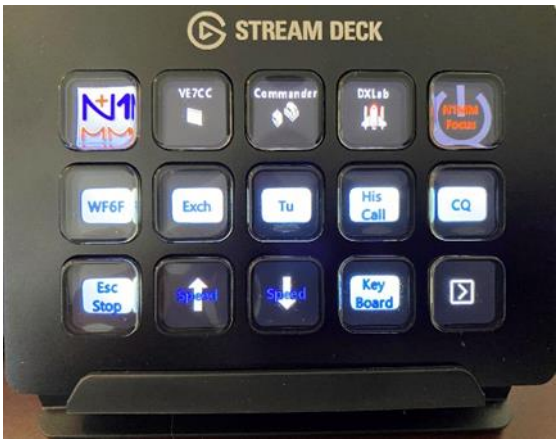
Streamdeck has what they call Multi-Action macros that allow you to combine a whole bunch of different tasks. They use internal as well as external third-party plug-ins to perform each task. As an example, when I enter a new call in N1MM's entry window, pushing a single button ensures Windows' focus is on the QRZ button and the internet query for that call is sent. All without having to grab the mouse, move it around and click on the little QRZ button in N1MM. This a pretty simple example, but things can get complex really fast.

Somehow or another, my TS-890 occasionally drops out of CW mode and ends up in never-never land like USB-D or RTTY – I guess it's just following N1MM's directions. Getting the rig back to CW mode with Windows focus on the N1MM F1key for my callsign of F2 for Exchange was a challenge. This set of multiple tasks involves firing off a Powershell script to send a CAT1ASC command over the COM port to set CW mode on the rig and then putting the Windows focus on N1MM and finally invoking a hotkey for F1 or F2.

I've been playing with my new Streamdeck now for a couple of days and have already come up with almost 30 different keys. Some are really easy hotkey invocations and others are multi-action macros.

I've found that first setting things up properly with the individual apps of N1MM, VE7CC and DXLab as well as the TS-890 function keys is really important. Then, moving to the next level of automation with Streamdeck is much easier. There will be an ongoing refinement of my new button definitions for sure.

If it weren't for such fun things as Streamdeck I'd be getting more DX time – hi hi.



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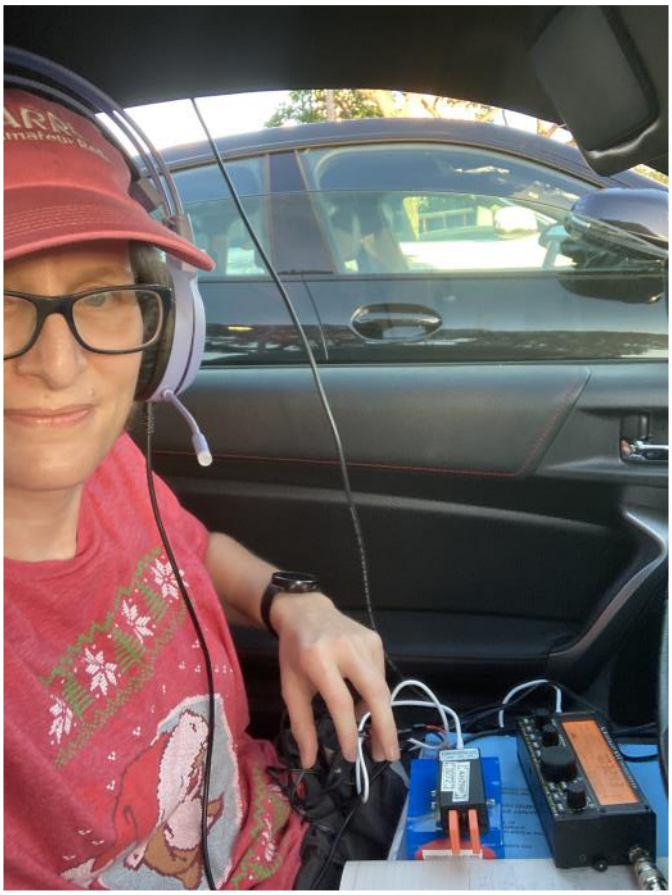
Aloha

Heather Flewelling, AH7RF (CWops #3272)

Hello! I saw a call for articles about what it's like to be a CWop in Hawaii, so decided to write an article. Dick N9EEE was wondering if we sip Mai Tai's at the beach while doing CWTs - nope, no Mai Tai's but I do often operate at the beach. I'm still very new to HF, CW and CWTs, but have been operating in the CWTs exclusively QRP and about 75% portable. I split my time between Oahu and Big Island, and I have a number of operating locations I like. Some of my locations are good for CWTs, others are not so good. When I am on Oahu, I am 100% portable. My rig is an Elecraft KX2, I use a https://cwmorse.us/ paddle, and my most frequent antennas are an endfed in a tree, a g5rv, or a hustler antenna on top of my car.

For those of us in Hawaii, the 4 CWTs happen at 3am, 9am, 5pm, and 9pm. For me, 5pm and 9pm are the most likely CWTs to participate in, with the occasional 9am one. I really like the CWTs - for someone who is QRP in the middle of the Pacific, with compromised antennas, it helps to try to work the big antenna stations, and there are quite a few of them in the CWTs! A good score for me in the CWTs is anything greater than 5 contacts. My record is currently 8.



Cramped conditions in my car, at Ala Moana Beach park, for one of the CWTs

For most of my CWTs, I had really bad / compromised antennas. I started out the year with a bad shoulder injury, and combined with my inexperience, meant that most of my antenna attempts were pretty pathetic. As my shoulder has healed and with more experience, I've gotten a lot better at getting an antenna up. My first 8 months of CW, from January to August 2022, were all entirely local KH6 contacts.

The majority of my early CWT contacts were mostly just with other KH6 CWOps members. I can often work them on 40m using NVIS, but for the higher bands it seems to be hit or miss, depending on my location and the conditions. I am still very inexperienced in HF. As a scientist, it's a neat experiment to have CWT contacts each week with the same hams, and I've learned a bit more about propagation this way.

Stan AH6KO is my most frequent contact - he seems to be active in almost every CWT, and I learned a lot just by listening to him running. One thing that is apparent is that he can hear a lot more stations than I can. He has a good technique when running, and has a consistent pattern, moving from one band to another, with a combination of S&P and running. He's also been incredibly helpful and encouraging, and had lots of great advice for me. He was my second CW contact,

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and then months later, my first CWT contact!

Bob NH6O is my second most frequent contact, and I've learned a lot from him as well - he's QRP, and sometimes in the same park as me! One time, he was in the same park, and both of us happened to be doing S&P on the same band, and usually the same frequency. He is faster at decoding, so right as I'm starting to get the runner's call, I hear his call, and could follow along as he pounces. It was fascinating to hear both sides of the QSO that way, and then when he was done, I'd give it a try as well, if he was successful. Bob has also been extremely helpful for all things portable and QRP. He was my first non-sched contact, and I first worked him during the WPX contest in May, each of us operating from different parks in Honolulu.

I've worked other KH6 stations as well - they aren't as frequent on the CWTs, but much like NH6O and AH6KO, they are usually very loud and easy to work when I find them. This is one thing about living in the middle of the Pacific, you very quickly find who your CW neighbors are! I've gotten signal reports from other hams in Hawaii, who've been listening to my CW as I went through CW Academy, and have commented that my CW has gotten a lot faster and better. I've also randomly stumbled across KH6 stations calling CQ, and those QSOs are a lot of fun - instead of saying their QTH is Hawaii, they often get very specific, sometimes just saying the neighborhood (QTH Lower Manoa, for example).

As I've gotten better at raising antennas, and listening, and figuring out which bands to work, I started making DX contacts in the CWT. The easiest and most frequent DX for me is Australia, New Zealand, Japan, and California. Many times, most of my contacts in the CWTs are from only Hawaii, Australia and Japan, but lately I've been having better luck getting other contacts as well. My most frequent DX contacts are Allan VK2GR and Ken JN1THL - often on multiple bands in a session, and sometimes, if they can't hear me, I run on a nearby frequency, where I hope to get spotted and pounced on, which works! I think sometimes they are as hungry for CW contacts as I am, it can be very sparse on the high bands for the 3z and 7z CWT sessions.

My car and antenna, hanging out at Moanalua

Since I am portable, I like to operate at a number of locations, which I describe below. Most of my locations are surrounded by lots of RFI, are somewhat close to the ocean, and face the southwest. If I have internet, I will check https://reversebeacon.net and https://rbn.telegraphy.de/ to see if I get spotted. I mostly do paper logs but have started using N1MM for logging. Generally if it's a hike, I'm not bringing a computer with me!

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Ala Moana Beach Park / Magic Island (Honolulu / Oahu) - this is a busy beach park, open until almost 10pm. The Magic Island part is a peninsula which you can park on. When I am here, I use a hustler antenna stacked on top of my car, and I usually stay in my car to operate.

Pros: 1 mile from my house, easy to set up.
Cons: You get nudged out starting about 9:45pm, it's very noisy (RFI from cars, noise from humans), very cramped in my car. Lots of QRM on 40m from a local AM station.

Moanalua Bay (Honolulu / Oahu) - a less busy beach park, open until about dusk. You can drive right up to the beach. I operate the same as I do on Magic Island, with a hustler antenna on top of my car. This is the same park that our club uses for field day.

Pros: not very busy, not a lot of RFI compared to other locations. Very nice view of the ocean.
Cons: 11 miles away, through a lot of traffic, closes early, cramped conditions if I operate in my car. Hot and sunny.

One of the parks in Kakaako (Honolulu / Oahu) - a very quiet park, with nice tables and trees. It's about 2 miles from my condo. There are a few tall trees that are very nicely trimmed and near the table. I've used my endfed and my 20m dipole here. I've met up with Bob NH6O a number of times here.
Pros: Everything!
Cons: Sometimes I get rained on, and there's a lot of QRM on 40m.

Roundtop Forest Reserve / Makiki trails (K-2222, Honolulu / Oahu) - this is my favorite location, and one I walk to from my place! My first non-sched contacts were made while up here. I go a bit off the trail, and set up where there's a steep drop off on either side of me, and it's always very quiet and peaceful. I've tried a number of antennas up here.

Pros: shady, lots of good trees for antennas, a nice hike to get there, nice view of the city, very relaxing location
Cons: it's a 2 hour hike from my condo to get here, lots of weird mixing with my KX2 and the FM transmitters around 14.060, the location is only accessible during daylight, the trails can wash out when it rains, and I've never had enough time on a Wednesday to do a CWT here.

At the house on Big Island (Kawaihae, Big Island)

Pros: lots of opportunities for antenna experiments, can operate inside, can operate at 3am if I wake up! Nice view of the ocean.
Cons: lots of RFI from the solar inverters, no trees for antennas, can get windy and knock my antennas down.

I also operate at other locations as well - the ones I listed above are my most frequent locations. Pretty much whenever and wherever I travel, I try to bring my KX2 with me. I've had a number of spectacular failures on some of my radio adventures, most failures happen when I forget various

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antenna parts, but I've gotten a lot better at bringing enough spares to rescue myself. There are a lot of times when I'll get my station ready, and if conditions aren't great, I will strike out and get 0 contacts. I've been told by a number of hams that life's too short for QRP. I think it just depends on what your goal is. Mine is to operate, hopefully outside, with nice scenery, and bonus points if there's a nice hike in there as well. I like to try new antennas and I also just like listening to the bands. I have made several friends while learning CW, many of them CWops members. I am enjoying my CW journey, one contact at a time, and I am very CW happy!

My station when I was on the summit of Lana'i (KH6/LN-001) - a 7 mile journey to the top, through a lot of mud, on a mountain bike. This summit has now finally been activated, I made 3 SSB contacts with local hams, and 0 CW contacts, despite lots of effort. Lots of fun to go downhill, and I was completely covered in mud at the end.

At Roundtop Forest Reserve / Makiki Loop trail (K-2222) - my favorite portable location, with a nice view of the city through the ironwood trees. I actually have only tried to activate it as a POTA once, despite coming here with my radio many times.

Aloha

3B8M - CQ WW CW - After-action Report

Alan Higbie, K0AV (CWops #1129)

Courtesy Mauritius Tourism

In November 2022, my wife and I vacationed in East Africa for a couple of weeks before going out to 3B8, Mauritius, to join a group in preparing for the 2022 CQWW CW contest.

I was fortunate to join a group which had been there before and already had a truck load of gear stored on the island.

The contest QTH was at a rental villa on the island's northeast coast. The villa is entirely surrounded by salt water.

The antennas were "field day" style temporary wire antennas suspended from telescoping fiberglass masts. There were 10 such masts ranging from 10 to 18 meters in length.

We were a multi-multi entrant in the CQWW CW using the contest call of 3B8M. Outside of the contest we used 3B8/ our home calls. I used 3B8/K0AV which had been authorized by the local authorities in advance.

All stations were K3 or K3S transceivers into SPE Expert amps at the legal maximum of 800 watts.

The antennas were completely set up by the Tuesday before the contest! We tested for inter-station interference - and with low-power and high-power bandpass filters on every band (plus 2 additional stubs on 40) - we had no problems with hash or garbage related to any band. The direct harmonics were clean and no more than about 5 kHz wide.

Aerial view of 3B8M contest QTH

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During times when there was no skip propagation, we checked every band for RFI from local external sources. We located a few local devices, which were tracked and eliminated. Kind of a dream situation. For example, 40 meters was totally quiet during the day. After sunset the noise floor rises - presumably because of lightning storms in the tropics, first from the Indian Ocean and afterwards from mainland Africa.

As the primary 40 meter operator, I wanted to assess how long before sunset and how long after sunrise I could expect to work stations. I operated before the contest (as 3B8/K0AV) and tested the pre-sunset propagation on 40 meters. Signals along the terminator begin to be heard 2-1/2 hours before 3B8's sunset, while the noise floor was still exceedingly low. As the other end of the terminator moved across North America, I heard many stations from the US east coast, TX, CO, W6, and W7 which were easy to copy. Compare this to the reverse situation, where from the US, we don't hear a lot of stations active at the other end of the terminator. There was plenty of activity via long path.

In the November 23rd CWT 13z session (at least an hour before local sunset) the following CWops were worked: K5AX, W1WEF, K4RO, N3RS, N4ZZ, N1LN, K9ZO. Others were heard and called but I couldn't get through. Later, an 1-1/2 hours after our local sunrise I was able to work W8FJ (just before 03z CWT) and K7SV, P44W, KM4SII and K7UD during the 03z session. Great fun.

3B8M's primary operators on the bands were:

160m & 80m -
Philipp, DK6SP (CWops #2588) and Olof, G0CKV

40m -
Alan, K0AV (CWops #1129)

20m -
Denny, KX7M

15m -
Jamie, M0SDV and Philipp, DK6SP (CWops #2588)

10m -
Oliver, W6NV

10m—40m stations. 80m & 160m stations not shown

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Shown is a photo of the 40-meter antenna: a vertical dipole attached to an 18-meter tall Spider Beam fiberglass pole. A slight bend to the top of the dipole formed an "L".

This 40 meter antenna was situated on rocks just off-shore from the villa where we were located. 100% surrounded by salt water. The antenna was fed with coax which ran underwater (secured with rocks), and then angled up the guy rope to feed the middle of the dipole.

K0AV "checking propagation." 40m vertical dipole, 10m VDA shown

It is one thing to read antenna theory - but then quite exciting to experience the exceedingly low take-off angle on the long path.

Because the vertical was omnidirectional, I did not have to think about where to point a beam antenna. Just take what comes. The downside of this feature is that received signals were weaker than if we'd had a beam on 40.

3B8 is located at 20 degrees South Latitude, and 575 miles east of mainland East Africa. From 3B8 the beam headings to the USA and to Europe are the same, i.e. ~ 330 degrees. To JA is more like 45 degrees.

On 10, 15 and 20 meters, we used vertical dipole arrays (VDA's). These are actually 2 element vertical beams. Two VDA's were used on each of the high bands and phased in pairs using stack matches. One of the 10-meter VDA's is shown to the right in the photo.

The 160 meter antenna was an inverted "L" supported by an 18 meter Spider Beam fiberglass pole (with 32 radials) and placed at the shoreline on volcanic rock. The 80 meter antenna was a similar inverted "L". Both radial systems were run over by salt water during high-tide, improving the ground system. For receiving purposes a K9AY RX-Array was put on one of the close surrounding rock outcroppings within the bay area. This antenna was a big bonus as it reduced

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the QRN situation and allowed us to pull through more signals on the 160m and 80m bands. 3B8/DK6SP was very active on topband prior the contest and achieved good worldwide runs. Overall, including the CQWW CW effort as 3B8M, 160m produced over 1000 QSOs in total during our stay. Messages reached us saying we were one of the loudest 3B8 stations ever on low bands.

The contest started at 0000z Saturday morning - which was at 4:00 AM local 3B8-time, i.e. UTC +4 hours.

All stations experienced huge pile-ups, undoubtedly because, for most, we were a double multiplier.

In the contest, well after sunrise, the runs on 40 meters had stopped - but I kept tuning the bands for QSO's. During this time, it was fun to S&P and give out double-multipliers.

It is exciting and interesting to be in a place where I could, for example, work 12 VU stations on 40 meters. And, they were loud!

Since we were a multi-op entrant, we could use the internet for RBN spots. So occasionally I'd break away from running to work the spotted multipliers. I learned that even though the multiplier might have a huge pile-up going - we could almost always get through - not because of a huge signal - but because of our call. Someone only needed to hear a callsign beginning with a "3" and they'd know it was probably a multiplier worth digging out - which they almost always did.

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There were 118 stations that worked us on all 6 bands!

There were many times when stations from the entire world seemed to be calling: Asia, VK, YB, EU, USA and South America all open at once. Often there was a problem with QSB on 40 - such that just when I'd focus on one call, the stations' signal would fade and I'd be left with just two letters. A potential remedy for the future would be to set up a separate 40-meter antenna - and use the diversity function on the K3's second VFO. That will probably be tried next year.

On 160 and 80 meters we had a K9AY loop receiving antenna. The plan may be to use a triplexer to make that antenna available for not only 160, but also 80 and 40 in the future.

One of last year's 3B8M team members, Kazu M0CFW-JK3GAD went out to Rodriguez Island and operated this contest as 3B9KW (single-op all-band HP). He stopped in for a couple of nights on his way back home to London. Interesting to hear the stories about his operation. He left his antennas there as he plans to return there for CQWW CW 2023.

1/3 of our group, M0SDV and DK6SP, are in their mid-20's. They are both active in the YOTA movement. If ever there was reason to have faith in the future of amateur radio contesting, they are it!

The great thing about a multi-op effort is that you get to learn so much from the other team members. This operation was no exception.

SC

What Happens on the WARC Bands During a Big HF Contest?

Douglas Zwiebel, KR2Q (CWops #438)

Back on Dec 4, 2022 a question was posed on the CWOps Group email system. Many emails followed. One question that was raised was, paraphrasing, "Do the WARC bands become packed during a contest?"

I thought that was an interesting question so I decided to take a look.

METHODOLOGY: I used the Reverse Beacon Network < https://www.reversebeacon.net/ > to download the raw data for this analysis. I used the 2022, November available download data for this analysis. The data is available as zip file for each date of the month. Below you will find a bar graph showing the file size, in Kbytes, for each day of November. The files include most bands (see below for details) and all modes. Used as a relative indication, it is still pretty good to show a distribution of activity over the month.

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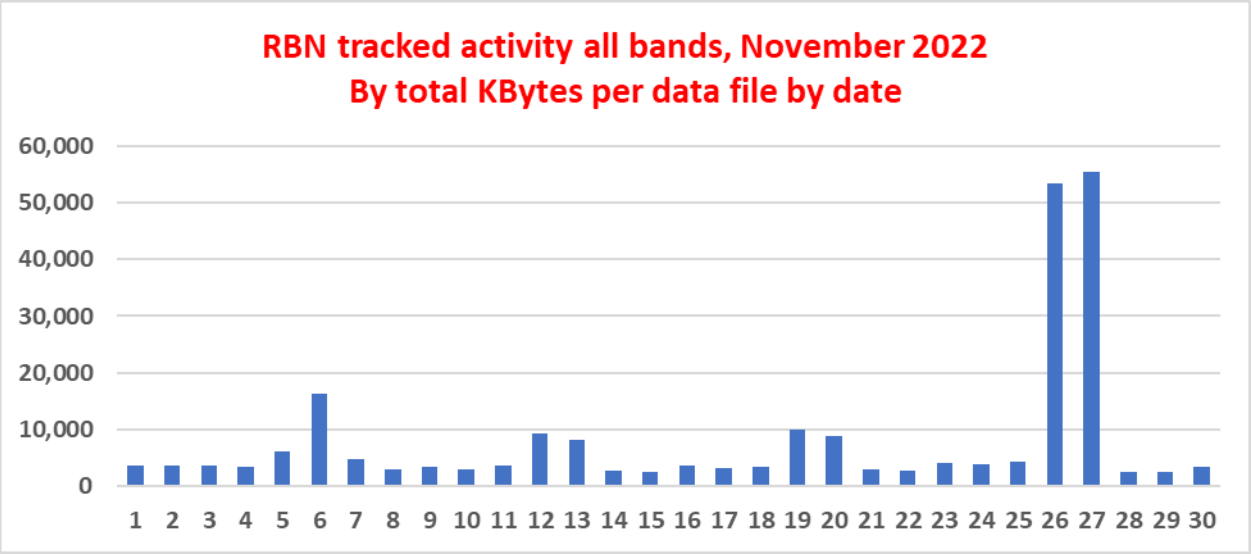

Next, I selected which dates to focus on. Since the CQWW CW contest is the biggest HF DX CW contest out there, I decided to grab that data. I chose to use one day, Sunday, November 27, 2022. Since it is clear from the above graphic that weekends are busier as compared with weekdays, the other date I selected to use for comparison is November 20, 2022 (another Sunday).

Since each file contains every possible band and mode, from 2m to 470kHz, and CW, RTTY, and 3 PSK modes, I chose to limit the data to 'HF' (10m to 160m), and CW only. I also excluded "beacon" stations.

Since RBN reports come from many skimmers, from around the globe, and repeats the same "spotted calls" many times for the same station at the time and band, I deduplicated the data. In other words, if there is a very strong station on QRG 14.001, he or she might be spotted from many USA skimmers and also from many DX skimmers, both in North America and from around the world. I did not want to "count" every single spot, every time. Each spotted callsign, no matter the source, is counted only one time per band, per hour. This will tell us the number of different stations active per hour, not how many times they were spotted.

RBN data also identifies what continent the call originated from and what continent it was spotted on. I selected to use the continent of the call sign being spotted for my analysis, not the continent where the skimmer was located.

All the remaining data would then be used to populate a table, showing each HF band, each hour the day, and the number of spotted different callsigns for each segment (time and band).

DISLAIMER

Using this methodology, we cannot determine if one station was spotted one time and only one time during that hour, versus being spotted every X minutes for the entire hour (aka "running"). We also cannot determine how long the QSO lasted, nor if any QSO was even achieved, nor how many QSOs were achieved. Therefore, a lone CQ without an answer (if spotted by RBN) is assigned the same value as a highly successful "runner" station who made (say) 60 QSO during the

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hour; each spotted call is counted one time per hour, per band. Making a QSO on 10m at 1001 UTC, and one QSO on 12m at 1015 UTC, and one QSO on 15m at 1018 UTC, would result in a count of "one" for each band (10, 12, 15), all during the 1000 "hour," assuming that each QSO resulted in an RBN spot for that callsign.

In summary, this methodology tells us "How many different calls were spotted by RBN on each band, per hour."

RESULTS

Tables 1 shows the analysis for November 27 (Sunday), the second day of the CQWW CW contest, for all continents.

dx_cont (All)

CQWW CW Sunday Nov 27 2022

# calls	band									
hour	10m	12m	15m	17m	20m	30m	40m	80m	160m	ALL
00	286	16	575	27	595	73	1,877	1,007	290	4,746
01	193	15	405	28	501	80	1,841	1,027	280	4,370
02	192	20	302	76	439	71	1,665	994	292	4,051
03	168	12	278	13	276	54	1,575	1,051	315	3,742
04	192	15	317	14	335	47	1,561	1,046	343	3,870
05	270	19	504	13	624	56	1,708	1,078	338	4,610
06	450	20	825	31	1,127	65	1,658	945	282	5,403
07	643	27	1,228	45	1,498	107	1,603	555	102	5,808
08	898	39	1,563	55	1,722	104	1,190	200	57	5,828
09	939	32	1,532	61	1,467	110	882	108	45	5,176
10	816	26	1,181	58	1,269	96	664	75	59	4,244
11	721	21	1,182	41	1,612	85	584	84	88	4,418
12	709	19	1,518	58	1,624	94	720	62	65	4,869
13	950	29	1,983	88	1,883	101	911	128	38	6,111
14	1,245	52	1,926	76	1,731	106	1,022	196	74	6,428
15	1,154	35	1,810	84	1,679	137	1,145	312	96	6,452
16	517	29	1,476	65	1,914	123	1,198	500	129	5,951
17	360	25	793	48	2,081	113	1,155	584	158	5,317
18	359	26	572	41	1,745	103	1,335	621	202	5,004
19	422	37	479	62	1,145	69	1,693	914	310	5,131
20	450	32	498	75	751	73	1,882	1,079	446	5,286
21	440	25	609	114	875	86	2,066	1,118	393	5,726
22	410	19	819	118	854	80	2,094	962	329	5,685
23	385	20	665	41	784	67	2,009	950	298	5,219
ALL	**13,169**	**610**	**23,040**	**1,332**	**28,531**	**2,100**	**34,038**	**15,596**	**5,029**	**123,445**

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Table 2 (below) shows the analysis for November 20 (Sunday), a full week prior to the CQWW CW contest, again, for all continents.

dx_cont (All)

2022 Nov 20 Sunday

# calls	band									
hour	10m	12m	15m	17m	20m	30m	40m	80m	160m	ALL
00	29	6	54	11	108	76	631	201	36	1,152
01	25	7	47	8	103	90	510	178	21	989
02	30	1	61	12	73	67	470	235	27	976
03	27	2	47	10	65	30	472	240	25	918
04	25	4	86	12	153	56	509	256	43	1,144
05	66	11	150	16	279	86	573	247	30	1,458
06	124	24	206	37	432	101	569	191	18	1,702
07	223	61	410	83	623	101	410	71	7	1,989
08	339	86	592	83	570	118	324	141	4	2,257
09	366	73	607	98	640	89	294	148	7	2,322
10	349	51	598	92	763	137	292	71	14	2,367
11	190	45	534	99	928	102	259	63	14	2,234
12	66	46	124	102	227	108	208	76	8	965
13	97	56	128	74	227	134	306	60	7	1,089
14	124	54	195	65	202	123	305	86	6	1,160
15	127	50	150	83	235	125	273	130	7	1,180
16	94	40	124	81	216	100	222	140	22	1,039
17	69	18	60	59	200	106	229	119	23	883
18	83	15	42	42	160	70	254	115	19	800
19	83	10	62	37	117	55	207	138	26	735
20	72	17	70	30	119	63	259	127	27	784
21	42	12	44	31	136	96	270	107	22	760
22	35	3	48	19	132	78	173	63	19	570
23	15	3	25	16	96	58	161	45	10	429
ALL	**2,700**	**695**	**4,464**	**1,200**	**6,804**	**2,169**	**8,180**	**3,248**	**442**	**29,902**

QUICK ANALYSIS

November 20 (one week prior to the CQWW CW contest), compared to November 27.

Band	# calls, 11/20	# calls, 11/27	Delta: 11/27 minus 11/20
10m	2,700	13,169	10,469
12m	695	610	-85
15m	4,464	23,040	18,576
17m	1,200	1,332	**132**
20m	6,804	28,531	21,727
30m	2,169	2,100	-69
40m	8,180	34,038	25,858
80m	3,248	15,596	12,348
160m	442	5,029	4,587
ALL	29,902	123,445	93,543

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Net activity on the WARC BANDS, actually dropped during the CQWW CW contest, although the results are split by band (less activity on 12m and 30m, but more activity on 17m). The net drop to total WARC activity is –22 or down just -0.5% (not a significant change). So, on a world-wide basis, there is zero increase in CW activity on the WARC bands during the CQWW CW contest.

MORE RESULTS

The above analysis is valid for a "world-wide," or all-continent basis. I then chose to explore the two major (by population) continents: North America (NA) and Europe (EU).

North America

dx_cont NA — 2022 Nov 20 Sunday

# calls	band									
hour	10m	12m	15m	17m	20m	30m	40m	80m	160m	ALL
00	4	2	5	3	60	31	196	69	18	388
01	1	2	8		30	36	161	65	14	317
02	1	1	4	2	13	26	172	105	13	337
03	1		2	1	3	9	144	84	12	256
04			5	1	15	9	114	48	15	207
05			8	1	12	4	101	32	5	163
06	3		17	3	36	11	89	22	3	184
07	12	3	30	1	55	4	55	8	2	170
08	10	2	35	1	33	5	33	5	2	126
09	13	3	32	2	49	4	26	10	2	141
10	6	1	26	1	82	15	23	20	7	181
11	6		39	1	86	11	45	27	10	225
12	5	3	12	6	21	11	62	37	4	161
13	13	8	21	12	29	30	78	23	3	217
14	27	13	50	17	41	16	79	10	1	254
15	29	20	51	38	76	27	62	7		310
16	37	20	45	36	89	25	53	7	1	313
17	22	15	37	36	93	18	51	5		277
18	31	10	31	32	111	25	53	6	1	300
19	34	10	31	31	74	34	45	10	2	271
20	35	16	37	24	82	33	45	7		279
21	30	11	32	29	100	43	89	9	1	344
22	22	3	28	18	95	38	65	10	9	288
23	8	3	15	15	81	33	83	23	5	266
ALL	350	146	601	311	1,366	498	1,924	649	130	5,975

dx_cont NA — CQWW CW Sunday Nov 27 2022

# calls	band									
hour	10m	12m	15m	17m	20m	30m	40m	80m	160m	ALL
00	88	8	200	7	298	44	845	403	89	1,982
01	34	7	85	4	210	41	879	463	106	1,829
02	18	8	21	5	120	22	754	436	131	1,515
03	25	9	20	1	61	17	694	445	113	1,385
04	16	10	21	3	63	14	647	414	98	1,286
05	34	15	35	2	73	12	656	350	102	1,279
06	36	12	54	2	89	6	526	280	82	1,087
07	48	8	62	2	143	6	503	201	40	1,013
08	72	9	114	10	188	11	390	83	27	904
09	53	7	115	3	143	6	289	41	23	680
10	67	4	83	2	161	8	254	31	39	649
11	41	4	149	2	401	11	231	57	55	951
12	93	2	403	8	479	16	257	25	18	1,301
13	276	9	604	16	537	28	319	36	2	1,827
14	459	20	635	19	505	36	295	39	10	2,018
15	512	20	773	32	516	33	206	32	12	2,136
16	203	16	836	36	738	44	126	28	9	2,036
17	191	21	480	34	981	46	131	35	17	1,936
18	204	24	357	31	910	36	156	46	16	1,780
19	270	35	303	50	739	30	274	64	14	1,779
20	289	30	326	66	477	46	507	81	46	1,868
21	289	20	405	88	577	60	651	114	34	2,238
22	221	14	477	47	498	51	743	132	33	2,216
23	148	17	327	8	439	48	779	272	45	2,083
ALL	3,687	329	6,885	478	9,346	672	11,112	4,108	1,161	37,778

MORE QUICK ANALYSIS

November 20 (one week prior to the CQWW CW contest), compared to November 27, just **North America.**

Net activity on the WARC BANDS for *North America*, increased during the CQWW CW contest. The net increase to total WARC activity is +524 or up 54.9% (a significant change).

Band	# calls 11/20	# calls 11/27	Delta: 11/27 minus 11/20
10m	350	3,687	3,337
12m	146	329	183
15m	601	6,885	6,284
17m	311	478	167
20m	1,366	9,346	7,980
30m	498	672	174
40m	1,924	11,112	9,188
80m	649	4,108	3,459
160m	130	1,161	1,031
ALL	5,975	37,778	31,803

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Europe

dx_cont EU — 2022 Nov 20 Sunday

# calls	band									
hour	10m	12m	15m	17m	20m	30m	40m	80m	160m	ALL
00		1	2	1	7	11	233	117	18	390
01	1		2	1	5	9	148	94	7	267
02	1		1	2	6	9	126	104	12	261
03	2		5	5	13	3	154	132	12	326
04	5		15	2	57	13	221	186	26	525
05	25	1	55	4	163	39	327	199	23	836
06	61	10	108	16	284	60	389	160	15	1,103
07	141	27	249	54	461	80	277	55	4	1,348
08	242	64	436	65	470	103	229	119		1,728
09	266	56	461	79	526	79	206	119	2	1,794
10	285	44	463	82	592	111	217	27	1	1,822
11	154	39	401	86	732	85	155	16	2	1,670
12	37	35	69	85	180	89	98	16	1	610
13	56	37	70	57	184	93	179	25	3	704
14	65	36	101	43	151	98	179	66	3	742
15	56	25	69	42	146	93	182	117	6	736
16	23	16	42	43	116	74	157	128	18	617
17	7	2	10	19	98	79	139	107	22	483
18	2	2		6	37	36	165	103	17	368
19	1		1	2	34	17	117	121	19	312
20	1		4	4	27	27	148	110	22	343
21	3		3	1	21	40	110	90	17	285
22			1		17	25	58	50	10	161
23					3	9	28	20	4	64
ALL	1,434	395	2,568	699	4,330	1,282	4,242	2,281	264	17,495

dx_cont EU — CQWW CW Sunday Nov 27 2022

# calls	band									
hour	10m	12m	15m	17m	20m	30m	40m	80m	160m	ALL
00	19		42	6	57	4	766	512	170	1,576
01	7	1	26	12	61	10	737	469	145	1,468
02	19	1	33	59	87	11	692	464	133	1,499
03	10		39	6	70	10	700	514	178	1,527
04	25		47	2	107	9	679	550	221	1,640
05	61		144	2	307	22	845	668	216	2,265
06	189	3	388	19	732	40	939	595	184	3,089
07	390	12	722	23	1,039	87	892	305	53	3,523
08	626	18	1,038	30	1,190	78	638	81	14	3,713
09	721	18	1,101	40	1,072	97	417	39	8	3,513
10	622	21	880	47	896	87	251	19	5	2,828
11	564	15	846	35	964	68	209	6	10	2,717
12	476	14	931	46	934	72	239	13	29	2,754
13	538	20	1,168	65	1,141	63	320	41	20	3,376
14	637	28	1,092	51	1,037	64	448	94	42	3,493
15	509	15	876	50	1,007	97	692	230	65	3,541
16	194	12	531	27	1,034	75	846	421	107	3,247
17	82	2	211	13	958	63	838	489	122	2,778
18	31		105	8	698	61	977	508	165	2,553
19	34	1	76	10	308	33	1,180	764	266	2,672
20	37		73	7	173	25	1,118	900	344	2,677
21	30		51	20	118	22	1,140	884	314	2,579
22	29	2	70	62	119	22	1,106	741	264	2,415
23	25	1	44	29	111	10	1,008	605	223	2,056
ALL	5,875	184	10,534	669	14,220	1,130	17,677	9,912	3,298	63,499

MORE QUICK ANALYSIS

November 20 (one week prior to the CQWW CW contest), compared to November 27, just **Europe.**

Band	# calls 11/20	# calls 11/27	Delta: 11/27 minus 11/20
10m	1,434	5,875	4,441
12m	395	184	-211
15m	2,568	10,534	7,966
17m	699	669	-30
20m	4,330	14,220	9,890
30m	1,282	1,130	-152
40m	4,242	17,677	13,435
80m	2,281	9,912	7,631
160m	264	3,298	3,034
ALL	17,495	63,499	46,004

Net activity on the WARC BANDS from stations in Europe, actually dropped during the CQWW CW contest. The net drop to total WARC activity is –393 or down 16.5% (a significant change). So, on a **European** basis, there is substantial decrease in CW activity on the WARC bands during the CQWW CW contest.

If you want to know about "the rest of the world," you can combine NA + EU and subtract that from the "all continents" results previously shared (above). Because of much smaller volumes, when spread over 4 other continents, I did not complete that analysis.

CONCLUSIONS

On a global basis, net CW activity on the WARC bands decreases during the CQWW CW contest, albeit by a non-significant amount.

On a North American basis, there is a substantial increase in CW activity on the WARC bands dur-

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ing the CQWW CW contest, but still far less activity than found on the adjacent bands (above or below) as recorded on the non-contest weekend (11/20).

On a European basis, there is a substantial decrease in CW activity on the WARC bands during the CQWW CW contest.

Overall, the WARC bands do not become "packed with stations" during the CQWW CW contest.

SC

Giving Back Update

Rob Brownstein, K6RB (CWops #3)

CWops' Giving Back (GB) program is meant to provide on-air QSO experience and practice for anyone who wants it. It was initially intended as a way for our CW Academy students to get some-air experience. We all know that when there is activity on the bands, these days, it's usually a DXpedition pileup or a contest. Today's CW aspirants have had little chance to work others who are skilled at CW, operate at moderate speed, and are committed to helping. That's the mission of Giving Back. The GB volunteers get on the air at approximately 7 PM local time and seek out CQers, or call CQ, and engage in routine QSOs including some conversational tidbits. The operators' schedule appears on the next page.

Here are the December results:

AA0YY: KI5PGL, WA2HMB, W7AEH, KN4CQB, W5BIB, W0HY, K6DF, KI7NRI, WQ9H, W7MSL, NA5LU, K6RC
E25JRP: E25HGQ (2), E24ZST (3), E20MWE, HS4QKN, HS3PFB (2), HS0GWL, E22MAL, 9M2ZN
G0POT: IU0QEM
GW2CWO: EA7KEJ, HA2PP, I5EFO, HZ1BH, HA8UT, EA7/PA5JF, DL1BXZ, SP5UAM, EA4HKF, S52OW, I5ECW, 9A2UN, IK7FPU, LZ3DL, VE9MM, IU5HES, SQ5AUV, G4HXY, EA3AKP, R4LA, IK4WLA, DH3JZ, DK5KF
JJ1FXF: JE6WGA, K7WLG, JA4IIJ, JJ1FWH, JH3KDZ, JH3UDD, JJ5QLV, JQ2NUD, JA1ORM
JJ1VNV: JQ3EEQ
JM4AOA: JA4IIJ (2), JA7IKQ, JE6WGA, JE8CIC, JJ5QLV (2), JM8GWK, JN1FAO, JQ1JFW, N6TI
JR1WYW: JG2AZS, 7K1CRO, JQ2NUD (4), JR8KQS, JJ5QLV (2), JF5CXK, JA1UWF, JH0YLM, JE9AST, JI0DPT, JA1SJR, JA3MDU, JR2RAT
K6RB: KE5HL, KB0HXL, KK7INK, VE6VIC, W4EDE, NR4A, KF0IEV, WB6AFL, KG0HG, N0GRA
K7NJ: NE5E, AA2UP, W7RIP, VA2FJ, K9UCX, KD0UN, K1CAL, N7QR, WA1JAS, KJ5T, N2FQ, WP4JBG, KF6RMK, KX2P, W7ZDX, KI0F, N0XE, W2BXR, WA1WDE, KF7LX, KG9DW, N0IMJ, NU2J, VE4AKF, AE4GX, AG5XU, AA2UP, W4HTM, KY4GS, NN0QTE, W3IMD, NC1IA, W4EAP, KD2CRG, NS7E, K1DFT, NE9H, N0ZT
KV8Q: KC0MYY, W2IEF, KC2ETY, K4RKP
N2GSL: KC2KWA, W8KM, N0LUF, WA5KBH, W3AW, AD0IM, KQ4CZB, NQ3K

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N4TMM: NJ8L, KF8R, AB8MR, K2PQ
N5OT: KC3SVR, HA3HK, K2OHK, N1SMB, NS7E, W2PDY, KJ7OKA, N2KHH, N6AN, KP4YO
SV2BBK: IU0KTT, OE5WLL, HB9GYF, DL2KBD, EA3HTZ, K2YNO, IK5QLO
W2XS: KA3LOC, AK3X, KI3O, VE3WH, KC9YI, K1YS, K3WWP, W1PID
W5DT: N5KB, K2OHK
W8OV: AA0YY, K0CDJ, K6DF, N9EE, AA7TQ, N8DUS, W4YGT
7N2XZB: 6K2HJI

Giving Back Operating Schedule - 7 PM Local
40 meters 7.035-7.045 MHz and/or 80 meters 3.535-3.545 MHz

UTC+9	UTC+7	UTC+3	UTC+2	UTC+1	UTC/BST	UTC-1	EDT UTC-4	CDT UTC-5	MDT UTC-6	PDT UTC-7	Hawaii UTC-9
Mon											
JH2HTQ					G2CWO		W2XS	AA0YY		N6HCN	
JO1DGE							WK4WC				
TUE											
JH2HTQ	E25JRP		SV2BBK		GW2CWO		N4TMM	W8OV	K7NJ	K6RB	
JR1WYW							WE5P		K0ES	W7ZDX	
7N2XZB											
Wed											
JH2HTQ							K3ZGA	W2ITT			
JM4AOA								K8UDH			
Thurs											
JH2HTQ			SV2BBK				KV8Q	N5OT	K7NJ	W7ZDX	
JJ1VNV											
FRI											
JH2HTQ			SV2BBK		GW2CWO		N2GSL	AA0YY	WB7S		
JR1WYW											
Sat											
JJ1FXF											
JM4AOA											
Sun											
JJ1FXF				IZ8NXG			W5DT				
JM4AOA											

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CW Academy

Joe Fischer, AA8TA Bob Carter, WR7Q Roland Smith, K7OJL

Following are some general observations about the CW Academy for 2022. The charts presented herein were expertly prepared by Roland K7OJL.

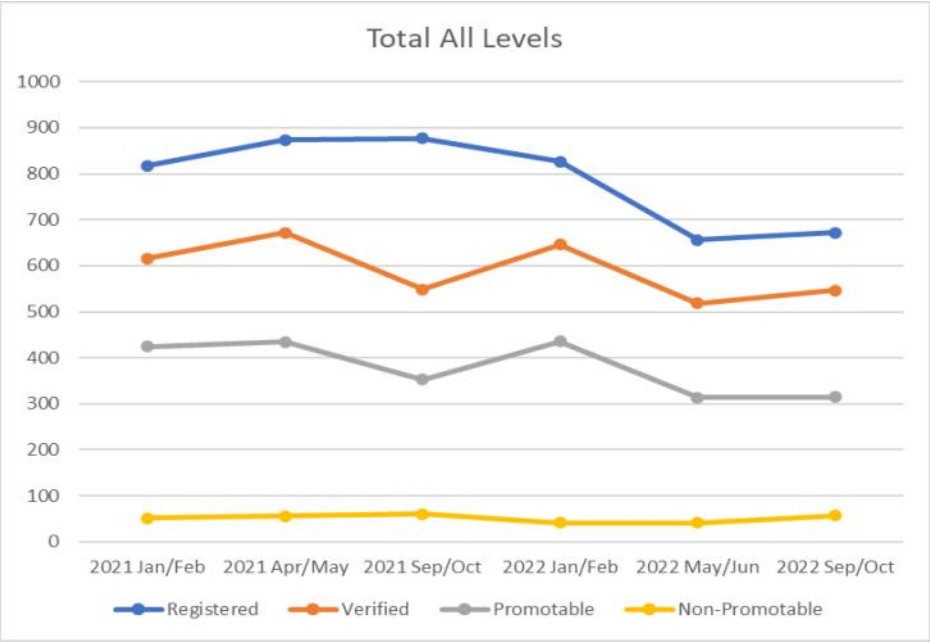
To begin, the CW Academy management/ administrative team is composed of Bob WR7Q, Roland K7OJL, Andrew N7AST and Joe AA8TA.

We do not have a well-defined organizational chart of responsibilities within the CWA administration, but everybody tends to do whatever needs done. Over the last two-plus years, considerable time and energy has been expanded to automate as much of the administration as possible to ease the manual burden of the administrators and advisors and to standardize how things work.

During 2022, Roland and Bob implemented a scheduling system that takes into account the advisor's time zone and local times and matches that up with student's time zones and local times. This has been quite a complicated effort with people all over the world, some areas using half-hour time zone boundaries and different implementations of daylight saving time rules. The end result is that we are able to offer potential students a better idea of when classes are offered and provide a better matching of time availability for both students and advisors. This class time matching is a continuing effort.

Over the last year we have also completely rewritten the curriculum for what used to be called the basic class, which is now called the fundamental class. This was done to reflect what we think should be emphasized in that class.

Looking at trends, our overall student signup numbers have been decreasing.



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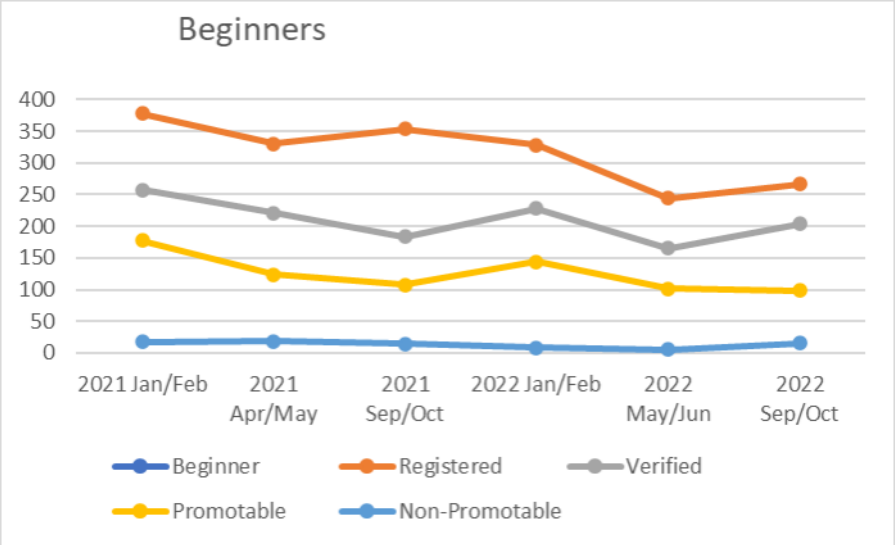
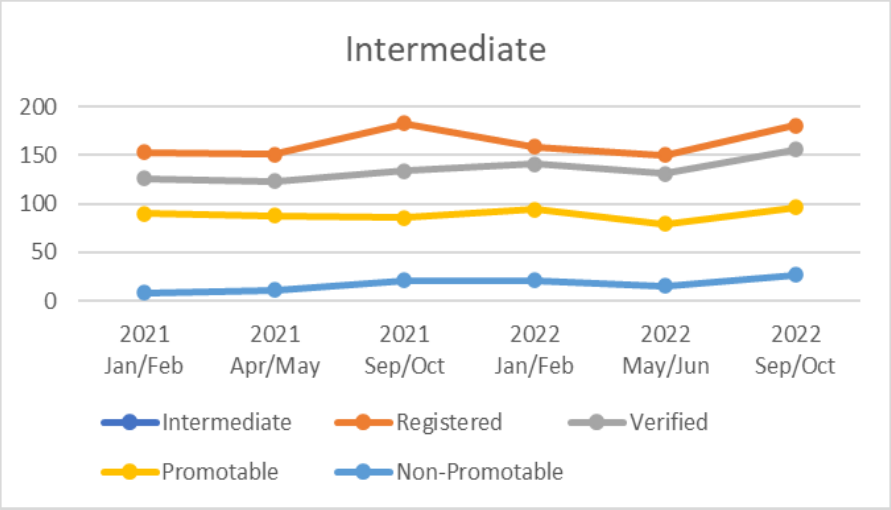
Picking one class, the beginner class, which is our most popular, has shown a decline this past year and a half.



However, our intermediate class is interestingly showing an increase which seems to run counter to the declines that have more students.



We can probably explain the overall decline by the loosening of COVID pandemic restrictions in most parts of the world. I do not have the exact numbers but my gut feeling is that we are below the 2018-2019 numbers. More frustrating to me is that our European student numbers are declining more than North American numbers. Again, I do not have exact statistics for that but note that many of our EU advisors have NA students who want to take a class that is in their afternoon times. Thanks to Roland's time scheduling efforts to make that possible.

Total classes, which somewhat correlates to number of students:

This shows the bump in pandemic interest. The dip in advisors for this year is mainly because we did not have the students for the volunteer advisors who were available.

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One area that receives no attention is our youth CW Academy. There are few kids who sign up for a beginner class, which is the focus of the youth CWA. Our youth advisor, Bruce K1BG, is very passionate about CW operating, learning and using CW and getting young people interested in these things. It is a shame not to take advantage of his passion.

Looking ahead: I see our biggest challenge as promoting the CW Academy to potential students, particularly in Europe. We also need to understand that we are not the only CW learning game in town and how we fit into the overall learning and promotion of CW operating. I know there is a committee within CWops to promote our club and I hope to work my way into some of their efforts.

I would note, from personal experience as an advisor, that many students and non-members read *Solid Copy*; it might be interesting if we could somehow find the ratio of readers who are members to those who are not. The CW Academy produces many new CWops members and the impression of the club is derived from what they read and hear and from what our advisors say; a few advisors are not members themselves.

Something that has been distressing to me is the passionate debate over what member qualification is – is it ability to contest or carry on a conversation?

Why should that matter? To me, if somebody says that we are a contest club, I would say "yes, we are." If somebody says we are a conversation club, I would say "yes, we are." We are also a POTA/SOTA club, a DXing club and other things. We in the CW Academy train students, and future members, to enjoy CW and go out and do whatever they enjoy among the activities above.

We are blessed that around 80 to 90 people, again a few who are not even members of CWops, are so interested in promoting our favorite operating mode that they want to help other people learn or improve their CW abilities. Truly, these are some of the most positive expressions of humanity.

73, Joe AA8TA (CWops #1821) CWA co-Manager

SC

New Members

Trung Nguyen, W6TN

With great pleasure we welcome the following new members to CWops:

CWops	Call	Name	CWops	Call	Name
3286	HA5MA*	Laci	3289	G4RQI	Dave
3287	AB8RL*	Tom	3290	K0RC*	Bob

* Life Member. Note: #3288 is reserved.

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Current Nominees

As of January 9, 2023

Need Sponsors: AI3W, ZS5PG, IZ4APU, N8XE, KP4PI

Invitations Extended: OK4RQ

For more details about nominees and up-to-date status, check the "Membership" then "Members only" page on the website: http://www.cwops.org.

For information about joining CWops, check the "Membership" page on the website: http://www.cwops.org

Notes: If you have updated your personal info, e.g., new QTH, new callsign, or additional callsign, please send it to membership@cwops.org so I can add it to the roster. Vice versa, if your callsign becomes inactive I can remove it, too. Then the roster will be accurate and current for our usage. Thank you.

73, Trung W6TN (CWops #1707)
Membership Manager

Did your **CALL SIGN** change recently?

Did you move to a **NEW ADDRESS** or change your **NAME** ?

Congratulations!

Help us keep our **DATABASE UP-TO-DATE**

Click HERE to update your contact information.

CWops Tests

Rich Ferch, VE3KI

Here are the lists of medal qualifiers for 2022. If you are on one of these lists and you want a personal certificate, go to the certificate web page at https://cwops.telegraphy.de/certificate/ , enter your callsign and download your 2022 participation certificate as a pdf file. Your certificate will automatically reflect your gold, silver or bronze medal status. If you are not on any of the lists but you did submit a claimed score of 10 or more contacts in at least one CWT in 2022, you can still download a personal certificate from the same web page, but it will just be a participation certificate (not gold, silver or bronze) and you won't qualify for a medallion.

There will be a change in the way the gold, silver and bronze medallions are distributed to qualifying members this year. They will no longer be free. There will be a $10 USD charge for each medallion to help defray the procurement and mailing costs. The procedure for requesting a medallion will change as well. First, you should check to make sure that you qualified for a medallion by checking the lists here (or on the groups.io website, or by downloading your certificate). If your callsign is on one of the lists you will be able to order your medallion through the CWT page on the CWops website at https://cwops.org/cwops-tests/ (near the bottom of the page). The deadline for ordering medallions will be the end of February. Once the procurement order has been sent at the beginning of March, it will no longer be possible to add to the order, so you will need to get your orders in on time. To jog your memories, there will be reminder announcements on the groups.io listserv and in the next issue of this newsletter.

Enjoy the CWTs and keep those reported scores coming!

73, Rich VE3KI (CWops #783)
CWT Manager

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GOLD

2E0OBO	K4WW	N5AW	W4ER
4X6GP	K5GQ	N5ER	W4IT
9A1AA	K5PI	N5KD	W4LJ
9A3SM	K5QR	N5XE	W4SPR
AA3B	K5YZW	N5ZO	W5TM
AD4EB	K6RB	N7US	W6LAX
AD8J	K7TQ	NA8V	W6SX
AF5DM	K7UD	NB7O	W7LG
AF5J	K8JQ	NE5A	W7PEZ
AG3I	K8WWS	NF8M	W8EH
AH6KO	K9ZO	NJ3K	W8FJ
CO8NMN	KA3LXM	NJ8V	W8MET
DL6KVA	KB4DE	NN4K	W9ILY
DM6EE	KC4WQ	NW3Y	WA3AAN
EA3FZT	KC8J	OE1TKW	WA6URY
EA6BF	KD2KW	OH1ZAA	WA8Y
F6JOE	KE8G	OK4MM	WA9LEY
G0OOD	KF6C	OK5MM	WA9MNF
G3LDI	KG5U	OZ3SM	WB4SON
G3WZD	KG9X	PA0INA	WJ0C
G4DYC	KI7Y	PA2TA	WJ9B
G4LPP	KK0U	PA3AAV	WM6Y
G4NVR	KM4CH	PE2K	WQ3E
G4PFZ	KM4FO	PY4XX	WR7T
G4PVM	KO4VW	SA0BXV	WT3C
I2WIJ	KR2AA	SM0HEV	WT8P
JN1THL	KR2Q	SM5IMO	WU6P
K0AF	KT4XN	SM6CUK	
K0PD	KT5C	SM7CIL	
K0PK	KV0I	SP5JXK	
K0TG	KW7Q	VA3PM	
K0VBU	LY5G	VE3KI	
K1DJ	LZ1ZF	VE3KIU	
K1DW	M0NGN	VE5GC	
K1RV	M0RYB	VE6RST	
K1SEI	N0TA	VE7XT	
K1VUT	N1RBD	VK2GR	
K2SX	N1RO	W0GAS	
K2TW	N2EY	W0TG	
K3JT	N3CI	W1QK	
K3PP	N3JT	W1TO	
K3WJV	N3QE	W1UU	
K3WW	N4BA	W1WEF	
K3ZGA	N4BP	W2KU	
K4GM	N4DT	W2NRA	
K4PQC	N4FP	W2XYZ	
K4TZ	N4ZZ	W4CMG	

SILVER

AA0O	K7SV	NA4J	W9NXM
AA2AD	K7UT	NM5G	WA2USA
AA2IL	K8RJW	NO5W	WA3AER
AB7MP	K9CPO	NS8O	WA3GM
AC0E	K9WX	OH2BN	WA4JUK
AC4CA	KA5M	OK1RR	WA8KAN
AE0Q	KA7MDM	OK2NAJ	WB5BKL
AE1T	KB1NO	PA3DBS	WB7BWZ
AF4T	KB3FW	PA3HEN	WB8JAY
AF8A	KB3ML	SM1TDE	WG3J
AG4EA	KB9S	SM5ACQ	WN7S
AI6O	KC2LSD	SM5SIC	WS5C
DJ1OJ	KC3M	SM6MCW	WS5D
DK4RW	KC7V	SP1D	WS7L
DK9PY	KC9YL	SP4JFR	WT2P
DL1NKB	KE2D	SP7OGP	WT9U
DL1NKS	KE4KY	SQ9S	WW3S
EA1X	KH6AQ	VA3SB	WX8C
F5SGI	KJ9C	VE2FK	
G0OOR	KN4RD	VE3EJ	
G3YLA	KV8Q	VE3FP	
GW0KRL	KW1X	VE3GFN	
HB9AJY	KY4GS	VE3MV	
I5EFO	LZ1HW	VE3NRT	
IK1YRA	N0AC	VE3TM	
K0EJ	N0PP	VE3TW	
K1AJ	N2EI	W0EJ	
K1GU	N2GG	W0NF	
K1IG	N2MA	W0UO	
K1NY	N2YO	W1RM	
K1RF	N3AD	W2NO	
K1SM	N3OC	W2VM	
K2YR	N3RD	W3MA	
K3ATO	N4AF	W3UL	
K3QP	N4DPM	W3US	
K3ZA	N4DW	W3WHK	
K4FN	N4GL	W4JM	
K4HR	N4ZR	W4RKU	
K4IU	N5EE	W4XO	
K4RUM	N5EP	W5MJ	
K5AX	N5OT	W6AYC	
K5CM	N5RZ	W6KC	
K5KXJ	N5TOO	W6TN	
K5OY	N7WY	W7GF	
K5UV	N8AA	W8CAR	
K7AZT	N8EA	W8FN	
K7QA	N8UM	W8OV	

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BRONZE

AA3R	IN3FHE	K4EES	KC0URL	N3AM	NY3A	W2QL	WJ7S
AA4NP	IT9SSI	K4FT	KE4S	N3CKI	OH1NOA	W3FV	WO9B
AA5JF	IT9VDQ	K4OAQ	KE6JAC	N3VO	OZ1AAR	W3SA	WU6X
AA8R	JJ1FXF	K4RO	KF8O	N4CWZ	PA1BBO	W3TB	WV1D
AA9SN	K0AD	K5ME	KG7YU	N4HAI	SA6BGR	W5LA	YO4AAC
AC5XK	K0HB	K5MM	KI6OY	N4IU	SM6JWR	W6GMT	
AD0AB	K0INN	K5VBA	KK7A	N4KS	SP3FSM	W6QX	
AE2DB	K0TC	K5VG	KM4WHO	N4NTO	SV2BBK	W6WG	
CT1ILT	K0WA	K5XU	KN6IPE	N5KW	UX1HW	W7IY	
DF7TV	K1ARR	K6AR	KX4FZ	N6HI	VE3MGY	W7JET	
DJ2MX	K1BZ	K6NR	KY0Q	N6TTV	VE3NE	W8BG	
DJ4MX	K1EBY	K6TTT	KZ5D	N7AUE	VE3NNT	WA5LXS	
DJ5CW	K1LHO	K7RL	M0DHP	N8BJQ	VE3SIF	WA5PFJ	
DL8TG	K2DM	K8FC	M0XUU	N8DNA	VE5UO	WA7CPA	
G3LHJ	K2EJ	K8GT	MI0WWB	ND4Y	VE6JF	WB7DND	
G4HLN	K3DMG	K8LBQ	N0BM	ND9M	VE7KW	WB7S	
G4HZV	K3FH	K8MR	N0HOV	NE0DA	VE9KK	WC7Q	
G4IZZ	K3MD	K8PK	N1DC	NM2A	W0AAE	WD4CFN	
HB9ARF	K3MM	K9DX	N1EN	NM5N	W0LPF	WD6T	
I2IFT	K3SEN	K9MA	N1LN	NN0G	W1AJT	WE4AUB	
I5ECW	K4BAI	K9WO	N2WK	NR3Z	W1VKE	WE8L	

SC

CWops Member Awards

Bill Gilliland, WØTG

Monthly Update

Please be aware that the Annual Competition Award (ACA) QSO totals reset to zero on January 1 and this January 2023 Member Awards summary shows the final QSO totals for 2022. If you had not uploaded your log prior to January 5, 2023, the total shown here will not include QSOs made after your previous log submission. You may submit a log containing both 2022 QSOs and QSOs from prior years and the website will update correctly.

During December, additional members submitted logs and the number of active participants in the awards program increased to 289 participants. The ACA QSO totals and rankings for the end of December 2022 have the same familiar calls in the top four positions with **KR2Q** remaining in first place and leading second place **AA3B** by 136 QSOs. The changes in the top ten rankings this month are **N5ZO** moving into fifth place followed by **NA8V**, **KG9X, N5AW, K3WJV** and **K7QA** in sixth through tenth place. The top ten ACA QSO totals this month are from **KR2Q, AA3B, K3WW, N5RZ, N5ZO, NA8V, KG9X, N5AW, K3WJV** and **K7QA.**

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With the addition this month of **G4PVM** and **N5AW**, 60 awards participants have now contacted CWops members in 100 or more DXCC entities. The number of participants who have accomplished CWops WAS grew to 175 this month with the addition of **AF8A, K0DEQ, NF8M, PA5KT, VE3NRT, VK2GR, WM6Y** and **WU6P.** You can see complete rankings for all award categories at https://cwops.telegraphy.de/scores.

CWops Award Tools Participation

The Top 100 ACA scores reported in *Solid Copy* represent **active** participants only, meaning you must have submitted a log in the current year. Since ACA scores reset to zero at the beginning of each year, active participants are those shown with a non-zero ACA score.

At the end of 2021 we had 257 active participants in the Member Awards Program. As of January 5, 2023, we have 289 active participants, exceeding any previous year's participation. If you have not yet submitted any logs, please do so soon, and we can include your score among the participants.

Inactive participants previously achieved scores in categories other than ACA that are not shown in the Searchable and Sortable Scores Table. To see rankings and scores for both active and inactive participants please use the Score Overview Table where inactive participants are listed with ACA scores of zero, but their scores in other categories are listed at the highest level that was previously submitted.

You can see the final scores for any year by going to the Score Overview Table and selecting the desired year from the "Final scores:" list at the top of the page. All scores categories on the page will then show the final QSO totals and standings for the end of the selected year.

The Searchable and Sortable Table can graph your current year's ACA scores by date and allows you to compare your progression to that of others. Check the Plot button for the calls you wish to see plotted and they will all appear on the same graph.

The CWops Award Tools website main page provides a means of printing your CWT Participation Certificate. You may request a downloadable certificate by clicking the "CWT certificate download" selection at the top of the page. For more information about CWT Participation Awards, please go to https://cwops.org/cwops-tests/ .

About the CWops Member Awards Program

Several operating awards are available for contacting CWops members. These include Annual Competition Award (ACA) recognizing the total number of CWops members contacted in a single year, Cumulative Membership Award (CMA) recognizing the total number of members contacted on each amateur band since January 3, 2010, CWops WAS Award for contacting members in all 50 states, CWops DXCC Award for contacting members in countries on the ARRL DXCC list, CWops WAE Award for contacting members in Europe, and CWops WAZ Award for contacting members in each of the 40 CQ zones. All contacts must be via CW and between current CWops members. To qualify for these awards, you must submit your logs via the tool at the CWops Award Tools website https://cwops.telegraphy.de/. You can also print out your awards certificates at that same website.

A set of tools for managing your awards status is provided on the CWops Award Tools website and if

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you regularly upload your logs your awards will be automatically tracked for you. **To view complete data for all currently active participants and see where you and others rank among active participants in the awards program, use the tools at https://cwops.telegraphy.de/scores-by-call.** For more details on the tools provided, see the August 2021 Solid Copy article.

Please Join Us!

Fabian, DJ5CW, who created the website and the tools, made it extremely easy to participate in the awards program. If you are not among the CWops members who are currently participating, please join us! It adds a lot of friendly competition and fun to your operating.

More Information

For more information on the CWops Awards Program, please go to https://cwops.org/contact-us/awards/, and address any questions or comments to cwopscam@w0tg.com.

Current ACA Top 100

ACA Top 100 as of December 31, 2022:

Rank	Call	ACA	CMA	DX	WAS	WAE	WAZ	Rank	Call	ACA	CMA	DX	WAS	WAE	WAZ
1	KR2Q	1920	7696	162	50	56	37	29	**K0WA**	1138	2562	40	50	18	17
2	**AA3B**	1784	12828	130	50	48	38	29	**K1DJ**	1138	4794	107	50	44	29
3	**K3WW**	1655	9995	133	50	50	38	30	**W4WF**	1135	4823	93	50	43	32
4	**N5RZ**	1587	8658	125	50	46	36	31	**K9WX**	1130	5133	101	50	40	30
5	**N5ZO**	1522	8624	110	50	46	35	32	**W0UO**	1124	3886	64	50	34	23
6	**NA8V**	1489	8052	112	50	47	35	33	**K1ESE**	1113	5799	130	50	47	36
7	**KG9X**	1447	6063	90	50	40	27	34	**WT3K**	1111	4314	83	50	42	27
8	**N5AW**	1429	6143	101	50	46	33	35	**W9ILY**	1109	6242	135	50	45	36
9	**K3WJV**	1415	7320	115	50	49	31	36	**N5KD**	1099	2621	90	50	41	33
10	**K7QA**	1383	6003	87	50	39	29	37	**WN7S**	1095	4364	78	50	37	26
11	**N7US**	1372	6134	113	50	43	33	38	**K3QP**	1085	3095	76	50	37	24
12	**DL6KVA**	1350	7074	183	50	62	37	38	**N1DC**	1085	5019	87	50	40	24
13	**K4WW**	1322	5259	84	50	38	29	39	**9A1AA**	1058	4474	127	49	52	38
14	**W1RM**	1306	8525	216	50	62	38	40	**KK0U**	1052	2463	53	50	28	22
15	**KC7V**	1290	5701	90	50	36	32	41	**VE3NRT**	1042	2080	53	50	32	21
16	**W1AJT**	1280	3934	96	50	45	31	42	**W0VX**	1040	5813	128	50	45	36
17	**K1VUT**	1267	5420	78	50	41	24	43	**K1EBY**	1034	3968	94	50	42	31
18	**AA5JF**	1250	4042	90	50	44	30	44	**WA4JUK**	1031	3960	84	50	41	26
19	**K3JT**	1248	5650	103	50	46	30	45	**KT5V**	1024	3489	80	50	30	29
20	**CO8NMN**	1238	4399	74	50	35	24	46	**WS7L**	1021	2854	60	50	26	25
20	**DK9PY**	1238	4219	102	50	45	32	47	**KC4WQ**	1020	3398	61	50	28	25
21	**VE3KI**	1236	7312	140	50	53	37	48	**NA4J**	1017	3713	74	50	34	24
22	**W8FN**	1225	4268	74	50	37	24	49	**KV8Q**	992	2920	67	50	33	23
23	**WT9U**	1217	5715	103	50	41	30	50	**N8BJQ**	985	7522	133	50	48	39
24	**K3PP**	1215	5470	103	50	45	28	51	**AA2IL**	**977**	**2163**	**43**	**50**	**18**	20
25	**K6NR**	1211	4766	66	50	32	28	51	**K3ZA**	977	2603	50	50	33	18
26	**VE3TM**	1189	3801	88	50	43	26	52	**VE3MV**	973	3667	82	50	41	21
26	**VK2GR**	1189	2370	74	50	38	29	53	**AF4T**	969	3023	72	50	36	26
27	**K5AX**	1169	5025	93	50	38	32	53	**K1SM**	969	4228	132	50	46	36
28	**N4CWZ**	1144	3251	58	50	33	20	54	**N3QE**	966	7346	128	50	48	35
28	**NJ3K**	1144	3644	69	50	38	23	55	**DL1NKS**	965	2713	95	50	49	31

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Rank	Call	ACA	CMA	DX	WAS	WAE	WAZ
56	**AF5J**	962	2755	57	50	23	23
56	**KY4GS**	962	1970	48	50	24	19
57	**K2TW**	945	3753	62	50	32	22
58	**WT2P**	944	4642	85	50	31	27
59	**W0GAS**	940	2276	46	50	20	21
60	**KY0Q**	939	2905	61	50	28	25
61	**K4TZ**	919	2818	43	50	20	16
62	**AC6ZM**	901	4094	66	50	36	22
63	**K0HB**	894	4029	84	50	36	31
64	**KM4FO**	892	3011	47	50	18	17
65	**N2UU**	890	5327	112	50	46	31
66	**N3CKI**	877	1969	45	50	25	16
67	**DF7TV**	875	2725	101	50	48	34
68	**KA1YQC**	866	2158	61	50	33	20
69	**WA9LEY**	860	4092	112	50	40	33
70	**W4CMG**	859	1884	44	50	21	18
71	**W0NF**	855	1643	27	50	11	15
72	**W2CDO**	850	2745	65	50	37	21
73	**AF8A**	846	3067	71	50	35	22
74	**K4GM**	843	3943	85	50	37	27
75	**OZ3SM**	834	2812	105	49	50	35
75	**W1UU**	834	4355	114	50	41	33
75	**W8EH**	834	2351	57	50	28	22
76	**G4LPP**	830	2210	88	49	45	31

Rank	Call	ACA	CMA	DX	WAS	WAE	WAZ
77	**EA6BF**	826	2046	73	46	42	29
78	**PA0INA**	824	2078	89	48	44	31
79	**I2WIJ**	822	3917	95	49	45	32
80	**W6LAX**	820	2303	42	49	20	21
81	**F5SGI**	819	2257	95	50	49	30
82	**K0AF**	817	1312	45	50	22	18
83	**K4EU**	811	1427	47	48	27	19
84	**KE8G**	810	3361	78	50	35	25
85	**N4FP**	806	2700	59	50	32	20
86	**SM6CUK**	797	4565	156	50	56	38
87	**EA2KV**	796	1832	69	47	41	25
88	**W3WHK**	795	3156	73	50	34	21
89	**EA1X**	791	2570	76	48	42	28
90	**K2YR**	788	2405	49	49	30	19
91	**WS1L**	787	2731	61	50	36	19
92	**DJ5CW**	784	3133	100	48	53	34
93	**W9SN**	783	1353	51	49	30	21
94	**K8AJS**	776	4202	104	50	44	31
95	**K3ZGA**	773	2170	57	50	30	19
96	**W6AYC**	769	2678	47	50	20	22
97	**EA3FZT**	762	2169	78	48	45	25
98	**W0TG**	751	3175	70	50	31	25
99	**WU6P**	748	1743	32	50	14	18
100	**G4PVM**	747	2644	101	50	48	33

73, Bill WØTG (CWops #1873)

CWops Operating Awards

Mini Tests Schedule

SPEED	XXT	DAY	TIME (UTC)	EXCHANGE	SPONSOR LINK
20 - 25 wpm	**MST**	Monday	1300 - 1400z	Name and QSO serial num-	International CW Coun-
20 - 25 wpm	**MST**	Monday	1900 - 2000z	Name and QSO serial num-	International CW Coun-
20 - 25 wpm	**MST**	Tuesday	0300 - 0400z	Name and QSO serial num-	International CW Coun-
25+ wpm	**CWT**	Wednesday	1300 - 1400z	Name and CWops # (or S/P/	CWops
25+ wpm	**CWT**	Wednesday	1900 - 2000z	Name and CWops # (or S/P/	CWops
25+ wpm	**CWT**	Thursday	0300 - 0400z	Name and CWops # (or S/P/	CWops
25+ wpm	**CWT**	Thursday	0700 - 0800z	Name and CWops # (or S/P/	CWops
< 20 wpm	**SST**	Friday	2000 - 2100z	Name and S/P/C	K1USN
< 20 wpm	**SST**	Monday	0000 - 0100z	Name and S/P/C	K1USN

QTX Report: Enjoying the Art of Conversational CW

Bruce Murdock, K8UDH

Last year is in the books. It's easy to think about all the things that didn't work out or the things we wished we had done last year but didn't. Those thoughts alone do not change anything. Instead, we can use the experiences of last year to help us develop some reasonable goals for 2023. I plan to have more activity in the hamshack and do more CW ragchewing next year. We'll see how it works out.

Cecil K5YQF had a great year with CW ragchewing. He was the high scorer for 2022 with 694 QTX ragchew QSOs. Awesome!!! Congratulations Cecil on a job well done. He will receive a handsome plaque commemorating his accomplishment.

QTX Certificates are available upon reaching the 100, 500, and 1000 QTX QSO levels. Members can download and fill out one of the certificates. https://cwops.org/qtx-awards/ They will look great on your wall.

As we announced in the December Solid Copy, I am stepping down from my position as the QTX Manager. We're looking for a new QTX Manager. I hope you're interested in the opportunity to make a difference for CW and CWops. If so, please let me know. murdock27@gpcom.net Thanks.

Comments from QTX Submissions

W8OV: I had a couple QSOs with an operator who is trying hard to improve his QSO and speed, as he has taken the CWA Intermediate class 3 times. Our second QSO was at 18 wpm and he seemed to copy everything.

G3WZD: New Year's Resolution; do more QTX!! HNY one and all...

N9EEE: I operate QRP so I always appreciate the ops on the other end giving me honest signal reports and willing to go the distance if I'm a 449. Happy New Year!

W3WHK: HNY, Bruce! Particularly interesting QSO with WD4xxx in Louisville, who is a well-known professional gospel singer. I am working on him to join CWops. Also chatted with NZ8J (CWops #1217).

WS1L: December was a great month for QTX. Thanks to everyone who made my log fatter in 2022 and I hope to work you again in 2023. HNY!!

W9EBE: Thank you Bruce/K8UDH for being an excellent QTX Manager through the years! Happy New Year to all -- 73 es ZUT

VE3WH: I have had a very enjoyable year of MQTX and QTX rag chews with many over an hour. The follow up e-mails, QSOs, and QSL cards were all very encouraging. The most fun was working operators that normally only do exchanges that find out by surprise that conversational CW is

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something they actually like. Let's keep the conversation going!

F5IYJ: Wishing you all the best for 2023 and, of course, many ragchews on the air, with good telegraphers.

GW0ETF: Most operating this month was running GW5WS in the Transatlantic Test event so very little rag-chewing!

K5KXJ: Not a big count for the month due to very limited time to get on the air. But there were some FB Qs with one being (if he is interested) a good CWops member candidate.

N6HCN: Not that I'd recommend it, but getting COVID sure made my holiday more relaxing and boosted my QTX scores!

K6DGW: Schedules with NU6T have been working well, his CW is improving steadily [mine might be a little too] Happy New Year.

K5YQF: Been an enjoyable year for ragchew. Met new folks and got better acquainted with many others. Thanks for a fine year and looking forward to 2023. 73s all.

AJ1DM: I am so fortunate to have had so many great people to qso with in 2022. I'm looking forward to more fun in 2023, with those folks, as well as with others I have yet to meet! 73 de John AJ1DM

K4AHO: Working a lot of POTA

WA2USA: I had another Q with Wes AC5K talking about old Heathkit amps and antennas. Wes and I seem to have pipeline between us on 30 meters.

KB6NU: I finally hit my goal of one per day! The ops seemed chattier than usual this month for some reason. Maybe everyone was off work. I capped off the month with a nice ragchew with Alan, W4MQC, #182, on New Years Eve.

WA9ZZ: 2022 Was a great year of CW ragchewing with friends. My New Year's resolution for 2023 is to earn a QTX 100 Award certificate!

NE0S: Happy new year to all of my CW and QTX buddies. Special shout to John N6HCN for making the effort to resume our weekly QTX QSOs. We had two long ones, despite John testing positive for Covid. That was a minute before we got on the air. Shout out to Guy and Rose. Both committed to weekly QTX for the New Year. Looking forward to adding them to the calendar. QTX can create the best friendships ever. Thanking the ionosphere for helping it all work. If you don't know, she (the ionosphere) has feelings too, WTX secret. To the contesters, just kidding! I am sober,. . . and thanks always Bruce.. 73 all

M0KTZ: December was as good as other months, with interesting openings on 15m-12m-10m which allowed several longer QSOs with some interesting DX. Thanks for the QTX/MQTX programme: it's a great incentive to keep our QSOs running, and this almost invariably results in get-

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ting to know better our fellow hams.

KG5SSB: This was a good month for ragchewing on the higher bands (15, 12, & 10 meters). Go on up there and call CQ. 73 & Happy New Year!

KG5IEE: Enjoyed a lot of air-time on my vintage rigs during December. Several vintage-to-vintage QSOs with Bruce K8UDH.

NE0S: Better later than never.

N2DA: Enjoyed the end of year sked QSOs! Happy New Year!

K8UDH: I'm looking forward to 2023 with lots of ragchew QSOs, often with classic rigs from the 1960s. They're lots of fun to operate.

Awards and Medals for 2022

Medals for 2022 are awarded for three different levels in QTX.

Gold – 400 QTX QSOs
Silver Medal – 300 QTX QSOs
Bronze – 200 QTX QSOs

For 2022, K5YQF, VE3WH, K9OZ, and WS1L have earned a Gold Medallions. N5IR and KB6NU have earned Silver Medallions. KC0VKN, F5IYJ, and WA2USA have earned a Bronze Medallion. Congratulations!!!!

QTX for December

Call	QTX	Call	QTX	Call	QTX	Call	QTX
VE3WH	81	KC0VKN	28	K6DGW	12	K4AHO	6
K5YQF	70	KY4GS	20	KG5IEE	11	N9EEE	5
WS1L	55	NE0S	18	K8UDH	10	W3WHK	4
F5IYJ	47	WA2USA	18	K0ALT	8	KG5SSB	3
KB6NU	32	N2DA	16	M0KTZ	8	W0GAS	3
N5IR	31	AA0YY	13	K5KXJ	7	W8OV	3
N6HCN	29	AJ1DM	13	W9EBE	7	WA9ZZ	3

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MQTX for December

Call	MQTX
M0KTZ	39
VE3WH	31
AA0YY	26
KG5IEE	17
K5YQF	13
KG5SSB	12
KY4GS	12
N6HCN	11
WS1L	11
W9EBE	9
K5KXJ	5
K6DGW	5
GW0ETF	4
K4AHO	4
W8OV	4
AJ1DM	3
NE0S	2
G3WZD	1
N9EEE	1
W0GAS	1
WA9ZZ	1

QTX Totals (2022)

Call	QTX
K5YQF	694
VE3WH	564
K9OZ	437
WS1L	420
N5IR	321
KB6NU	302
KC0VKN	282
F5IYJ	263
WA2USA	224
N6HCN	193
AA0YY	179
NE0S	179
N2DA	169
W9EBE	153
KG5IEE	125
AJ1DM	115
K8UDH	111
K4AHO	102
N8AI	67
K7VM	57
M0KTZ	57
W7JRD	55
K5KXJ	51
K6DGW	50
KY4GS	49
EI5LA	44
AA5AD	43
WA9ZZ	40
K0ALT	39
W0GAS	36
KF6NCX	35
KG7A	33
AA0IZ	32
W8OV	26
W3WHK	24
KG5SSB	20
GW0ETF	14
N0BM	14
AC8RG	10
SV2BBK	10
N9EEE	9
WT9Q	9
AB7MP	6
EI6LA	6
KB4WLF	5
MI0WWB	4
G3WZD	3

MQTX Totals (2022)

Call	MQTX
M0KTZ	317
VE3WH	261
W9EBE	206
AA0YY	198
SV2BBK	184
KG5IEE	173
K5YQF	136
WS1L	133
GW0ETF	123
N8AI	97
K6DGW	93
AA5AD	79
KG5SSB	73
N6HCN	55
KY4GS	49
K4AHO	47
K5KXJ	42
K8UDH	41
AJ1DM	40
W7JRD	39
NE0S	35
EI5LA	34
MI0WWB	34
KG7A	33
AA0IZ	24
KF6NCX	24
W8OV	23
K7VM	20
N0BM	17
G3WZD	12
WA9ZZ	10
AB7MP	9
W3WHK	7
WT9Q	6
KB4WLF	5
EI6LA	4
AC8RG	3
W0GAS	2
N9EEE	1

We have numerous ways to enjoy CW. For many of us, CW ragchewing is our favorite way.

73, Bruce, K8UDH (CWops #1654)
QTX Manager

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My Story: New Member Biographies

Compiled by Tim Gennett, K9WX (CWops #1462)

Laci Viczian, HA5MA

My ham life started in 1965 aged 12 in a radio club for youngsters. Got my license in 1973.

I'm a retired electrical engineer, living in a family house with XYL and two sons. The home QTH has limited antenna opportunities.

I'm also a secretary of the club HG5C near Budapest. That station is a remote QTH with big antennas available for a nice couple of ham friends.

I like DXing and contesting very much.

Derek Brown, WF4I

I got interested in amateur radio during high school in the mid-60s but did not get licensed. Learning Morse code was a "requirement" for all classes of licenses then and I could not master the 5 wpm required for a Novice ticket. Practice material then was listening to an LP (record) or copying W1AW off the air and I lacked a suitable receiver. In the late 70s my interest in radio was re-kindled and I signed up for a Novice course and later a General Class course. I was licensed in the spring of 1977 as WD4HFV and retained that callsign until I upgraded to Extra and became WF4I. By this time code practice material was available on cassette tapes which worked much better for me. However I learned CW "the wrong way" – slow character speeds, counting dits and dahs, and writing everything down. That severely limited my progress but eventually I was able to meet the 20 wpm code requirement for Extra. This is why I have great enthusiasm for the CWops CWA, learning code "the right way," fast character speeds and head copy.

About two and a half years ago I learned about CWops and the CW Academy. Already copying over 20 wpm, I signed up for the Advanced Course and committed to an hour of practice daily.

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Our CWA advisor, K6HP, encouraged us to participate in CWTs. The 0300 session was the only one available to me with my work schedule and I had to get up for work about 4 ½ hours later which did not work out. This past August I retired and was finally able to participate in the 1300 and 1900 CWTs. Before retirement, I purchased a FTdx10, a WinKeyer USB and set up N1MM Logger. I am a neophyte contester but I'm slowing improving.

My amateur radio interests include SOTA, POTA, WWFF – both as activator and chaser, QRP, rag-chewing and building or modifying radios and accessories. I get on SSB or digital modes occasionally to work a new park but have a strong preference for CW. I chase DX but not as avidly as in my earlier years in amateur radio. I am a Volunteer Examiner and assist in exam sessions locally. I belong to ARRL, QRP ARCI, QRPCC, SKCC, the High Point (NC) ARC and the KnightLites QRP Society (NC). I had a varied professional career that included the US Army Signal Corps, outside sales, industrial & RF electronics and materials planning. Outside amateur radio, I enjoy fly fishing / tying, SCUBA diving, traveling and doing fun stuff with my wife, Glenda. We are also a multi-cat family.

I am thrilled to be a member of CWops; it has been a long-time goal. My thanks to AB4PP for nominating me and for K5UV, N9TTK and N3JT for sponsoring me. I hope to be a regular participant in CWTs, to engage my fellow CWops in CTXs and, most important, to constantly improve my CW skills.

Heather Flewelling, AH7RF

Name is Heather and been ham since 2018.

QTH is Honolulu, Oahu es Kawaihae big island of Hawaii.

Rig is a KX2, running 5w QRP, and antenna is end-fed or G5RV or dipole or ?. I like portable QRP, parks, SOTA, CWTs, antenna experiments and rubber chickens.

I'm an astronomer and I have my own comet. Learned CW from CW academy. TU to my advisors: KH6TU/AD6E, K1DW, K1EBY, AC6AC, WM6T, N4DPM; TU to my Elmers: KH6DL, AH6KO, NH6O; TU to my sponsors: AC6AC, N4DPM, AJ6CU, N3BQ, AD6E, KE8HXE, NH6O.

Many thanks, QRP is fun!

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