# Solid Copy

# Ops Ops

The CW Operators Club Newsletter January 2025 — Issue 180

Gerben Menting, PG5M, pondering life among the penguins while activating VP8G. Story on page 11.

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, <u>GWØETF</u> Vice President: John Glover, <u>W2QL</u> Secretary: Jim Talens, <u>N3JT</u>

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Newsletter Editor: Dick Strassburger, N9EEE

# **President's Message**

I hope you enjoy reading this edition of *Solid Copy*, the first of 2025. When you're involved at the coal face so to speak it's easy to take our newsletter for granted and occasionally a



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random compliment from an unexpected source is needed to remind me just how lucky CWops is to have such a high quality publication. Our diverse and growing membership provides a wealth of interesting and entertaining material for the team of dedicated editors and designers to craft *Solid Copy* into what it is each month. I firmly believe it is one of the very best ham radio publications available, and not a single advert in sight. If there is better I'd like to see it.

Even though I provide a sort of warm up act each month with my opening column it is very rare I have any idea of what is to follow until the final proof reading a day or two before release: so I write each leader with last month's edition fresh in my mind. Notable articles for me this time include the report from the September/October CWA semester which continues the good news story behind our outreach and training program. Fifty of the overall total of 293 successful graduands were on the Advanced course and some are now among our newest members and active on the air. I worked Kostas SV8SXF in the recent ARRL 10m contest and he was sounding like an old hand! Good news indeed...

MØKTZ's excellent 'QTX Report' was next to grab to my attention and raised some intriguing thoughts when I read Enzo's musings on QTX and mQTX scores which he records each month along with participants' soapbox comments. Fabian DJ5CW has now incorporated each member's conversational QSOs into his CWops Awards Tool - 20 minutes or longer for QTX and 10-19 minutes for mQTX. Providing folk take advantage and upload their logs regularly to the Awards tool (easy!) it opens up the possibility of automatic score reporting which with a little help from Fabian, would make life very easy for Enzo. And this is where the intriguing thoughts arise which I seem to share with Enzo if I've interpreted his words correctly. Conversational or 'ragchewing' Morse I see as the 'human' side of CW operating where we go to escape the numbers game of contesting, and somehow automatic score reporting and tables doesn't sound right in that context. It is a blurred boundary anyway as totals are listed in ascending order for both monthly and yearly totals but I'm not convinced 'chewing the rag' is a game played just to increase one's table ranking (but I could be wrong). When I go on the air I've no idea what will happen and that to me is all part of the excitement. Often I find I'm the target of several callers probably after my GW prefix which still appears desirable to many and I enjoy rattling through them while still passing basic greetings. Other times I settle into a more relaxed discussion of....well, whatever! At the speed I ragchew it seems quite easy to exceed 10 minutes but I'm never clock watching. I'm not a great conversationalist in real life to be honest and exceeding 20 minutes is not that common; but when something clicks the QSO can stretch significantly further than the magic 20 minutes. For me the scores and tables are nothing more than an indicator of the health of 'Conversational CW' within CWops. I like it like that.

Newer members may not be aware that CWops 'owns' several special club calls. These are almost all of the format <DXCC prefix-CWO> such as K3CWO and G2CWO and are indicated in the members roster with the letters 'CLUB' in a white box that replaces the usual membership expiry date in the left hand column. Each has a membership number beginning at '20000'. Any member in the relevant area is able to operate the call but needs to coordinate with the call manager to avoid duplication. The intention is quite simply to raise our profile with a bunch of distinctive 'CWO' callsigns around the world but in truth that aspiration still has a long way to go. G2CWO (which includes the regional variations of GM, GW etc) was first issued to me 7 years ago but since then they have only been replicated across the US areas and one now in Australia. They are



also rarely heard on the air with the exception of GW2CWO which I use each week in 'Giving Back'. More activity and additional CWO calls would be welcome particularly in Europe (and Japan?) but this would be membership led and involve negotiating with local licensing bodies to issue such calls. Following the initial flurry only VK1CWO has been added to the list and progress seem to have stalled. Perhaps there is simply a lack of interest and that's fine; in the meantime one of my New Year Resolutions is to get on air and call 'CQ de GW2CWO' more often (and upload such QSOs to https://cwops.telegraphy.de/ under my own account so they will count for my personal CWops Awards totals...;-)

Here's hoping for a good 2025!

73, Stew GWØETF, President (CWops #919)



# **Editor's Note: Resolutions vs Goals**

**Happy New Year!** Are you ready to embrace it? Do you have a New Year's resolution? Perhaps you've considered quitting smoking, hitting the gym to shed a few pounds, striving for medallion status in the CWTs, or giving back to the hobby through your CWops membership. In his column, Stew shared his resolution to operate GW2CWO more frequently in 2025. So, what's yours?

I understand—New Year's resolutions often get a bad reputation. They're seen as fleeting commitments, casually made and just as easily abandoned, often with little consequence. But here's the thing: resolutions can work if you approach them with purpose and determination. I'm speaking from experience. I resolved to quit smoking cigars, give up alcohol, and commit to a regular fitness routine. And guess what? I did it. It wasn't impossible; it just required a clear decision and follow-through. As the famous Nike slogan says: *Just do it*. Write your resolution down, and it becomes more tangible, more real.

If you feel like you need a bit more structure or accountability, consider setting S.M.A.R.T. goals. These go beyond vague intentions by providing a clear framework. S.M.A.R.T. stands for Specific, Measurable, Achievable, Relevant, and Time-bound. This method forces you to define your goal clearly and attach a timeline to it, making it harder to ignore or push aside.

Let's try creating a S.M.A.R.T. goal together. For instance:

"I, [your name], will create at least one S.M.A.R.T. goal by the end of January 2025 that will enhance my enjoyment of the hobby and enrich my experience as a member of the CW Operators Club."

Now, take a moment to brainstorm. Make a list of the aspects of CWops that interest you. Are there areas you'd like to explore for the first time or ways to expand your current engagement? Once you've identified those, transform one of them into your next S.M.A.R.T. goal—because this first resolution expires on January 31, 2025.



Here's to making 2025 a year of growth, achievement, and even greater enjoyment of the CWops community!

**73, Dick N9EEE**, (CWops #3113)

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



# The 2025 CWops Award for Advancing the Art of CW

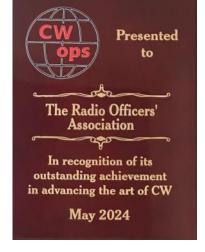
CWops is pleased to announce that it is now accepting nominations for this prestigious award for the year 2025.

The purpose of the award is to recognize individuals, groups, or organizations that have made the greatest contribution(s) toward advancing the art or practice of radio communications by Morse code. Details about past recipients of this award can be seen at <a href="CWops Award Winners - CWops">CWops</a>.

**Criteria** - Candidates for the award may be one or more of the following:

- Authors of publications related to CW
- CW recruiters, trainers, mentors, coaches and instructors
- Public advocates of CW
- Organizers of CW activities
- Designers and inventors who advance the art or practice of CW
- Other contributors to the art or practice of CW

Note: The award is **not** limited to amateur radio operators or their organizations.



#### **Nomination**

Nominations may be made by anybody (not limited to CWops members). Nominations should be emailed to <a href="mailto:awards@cwops.org">awards@cwops.org</a> with a copy to <a href="mailto:secretary@cwops.org">secretary@cwops.org</a>. An email confirmation will be sent acknowledging receipt of each nomination. In order to be considered, a nomination should be received by March 14, 2025 and include:

- Nominee's name, call sign (if applicable), and complete contact information including postal address, email address, and telephone number.
- A detailed explanation supporting the nominee's qualifications according to the above criteria.
- Complete contact information of the person submitting the nomination.

**Presentation of Award** - A plaque will be presented at the Dayton Hamvention. If a recipient is not present, it will be sent to them.

Riki, K7NJ (CWops #275)



# CW Operators Club Financial Statement 12/31/2024

Bank Accounts	
Bank of America - CWops	5,427.69
Hometown Community Bank	851.28
PayPal - CWops	10,528.83
TOTAL Bank Accounts	16,807.80
Investment Accounts	
CD Bank of Farmington	233,598.87
TOTAL Investment Accounts	233,598.87
OVERALL TOTAL	250,406.67
INFLOWS	
Club Dues	25,758.00
Hamvention Income	4,485.00
Medallions Income	1,360.00
TOTAL INFLOWS	31,603.00
OUTFLOWS	
Awards	2,896.89
Hamvention Expense	4,925.04
Marketing	976.07
Medallions Expense	3,162.68
PayPal Network Fees	1,924.19
TOTAL OUTFLOWS	13,884.87
OVERALL TOTAL	17,718.13

#### Notes:

Hamvention is breakeven

Medallion cost is more than income by \$1800 (shipping has increased dramatically)

Membership reserves for Life and future memberships should be \$239,380.

We will invest more at CD renewal to cover reserves.

Submitted by Craig Thompson, K9CT CWops' Treasurer (CWops #276)



# **Ops News and Notes**

#### **Duncan (Mac) Fisken, G3WZD**

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

A condolence card has been sent on behalf of CWops.



Don Toman, K2KQV #1962 on 10<sup>th</sup> January, 2025

Happy New Year! Welcome to another <u>Ops News and Notes</u>, and my usual thanks for the contributions. Please do keep the submissions coming, and there's no need to wait until the monthly call for articles or reminder (thank you to those who sent items early). Deadline for the next column is 23:59 UTC 1<sup>st</sup> February.

**Les, MMØUMH #3509** I came across this "shocking" news item in a recent edition of the Church Times. It may be of interest to your readers. The <u>article</u> states that the hams are to be hung there "until they are cured". However, as we all know, there is no cure!

**Glenn, VE1AQF #457** Just to clear up any confusion surrounding my different callsigns. When I lived in Ontario, I acquired the callsign VE3GNA back in 1966. When first licensed in 1965, in New Brunswick, I had received VE1IJ (more on that later). Around 1995 or so I became the manager of the Ontario Phone Net, so I was given the callsign VA3OPN as a second call. In Canada a single ham is allowed more than one call, and some have 3 or more.

Prior to moving back to Nova Scotia after my XYL passed away, I had reacquired my original call VE1IJ. This was allowed as I had established a mailing address in NS. When I physically moved, I swapped VE3GNA for VE1AQF which had been my late brother's call for many years until his passing in 2000. Then I had to decide what to do with my other call, VA3OPN.

Since each assigned call beyond one's original requires a contribution to the government I decided to take one additional VE1 call. I had wanted a second two-letter call but a somewhat obscure rule states that a single person may have only one of them. Meanwhile there are dozens of them available. Anyhow I settled on VE1AAC. My original idea had been to use VE1IJ as my everyday call, VE1AQF as my contest call and VE1AAC as a call for digital operations.



After two and a half years using VE1IJ daily I have decided to switch things around. So, for the present, anyhow, VE1AQF will be my everyday call, VE1IJ will be my contest call and VE1AAC will remain as my digital one. I hope that clears up any confusion.

**Josep, EA6BF #3072** Here's the 10m 3el Yagi still in place, and down, the re-built SpiderBeam 5 band Yagi ready to put it up! My friend Noe EA6/CO8NMN left, (CWops #2082) has helped me in that work.





Back on the air again! The next day we were at the remote site with 3 more friends, EA6AOV Josep, EA6AOR Bartolo and Noe EA6/CO8NMN and reinstalled the newly repaired SpiderBeam!

**Dwight, KM4FO #1436** Here we are starting a new year. 2024 sure went by in a flash. I managed to work a little more than 120 of the CWT's. I missed so many early in the year that I didn't think I would. I broke 1,000 on ACA for the first time ever. Over 33,000 QSO's in the log with the most of them on CW. That's a lot of fun running 75 watts to a dipole! I am looking forward to Hamvention and seeing a lot of the CWops members face to face.

**Ken, KN2D #3566** HamCation<sup>®</sup> is right around the corner! If you're planning to visit Orlando, Florida to attend HamCation<sup>®</sup>, the 2nd largest gathering of radio amateurs in the world annually, be sure to check out KN2D's presentation at 11:45am on Friday, February 7, 2025: "How to Ramp Up Club Member Participation!"

Sponsored by the Orlando Amateur Radio Club, an ARRL-affiliated club, and supported by volunteers from radio clubs throughout the region, Ken will help you learn how to get members of your club to show up for club events and get them more engaged in your club. Learn more <a href="here">here</a>.



**Mike, VE3GFN #1119** In November, with a hip replacement in my near future, I wondered if I would be able to navigate my basement stairs to the ham shack, after surgery.

I moved one of my IC 7610 transceivers up to the dining room table, together with a bug key, power supply, laptop PC, and LDG autotuner. I made a tap on the open wire line that goes up my tower to my inverted-vee antenna, and brought it through the bathroom window. Connecting it to a 4:1 balun, I could then run coax under the carpets to the rig. A 15-foot counterpoise under the carpets serves as a ground, the autotuner gets me on all bands, 80M - 6M, with a quite acceptable SWR.



I also brought in a much-refurbished gain vertical for 2 Meters and set it on the living room floor next to the new station. Adding a small 2m FM transceiver to the mix allows me to chat with friends on the local repeater. Many thanks to Bert, VE3NR, for the use of his muscle during installation, when my mobility was minimal.

Happily, I'm now going up and down those stairs like a gazelle, so the basement shack is now reserved for contesting, while the upstairs station gets a workout each day while ragchewing.

My dear XYL (SK) would never have approved this invasion of her upstairs, but I'll leave it all in place at least until recovery from the second hip replacement is complete.

**Ted, W3TB #2477** Just "listen" to the green stripes. A Christmas present made by my older daughter Heather, N3VVF



Until the next News and Notes, QAC. **73**, *Duncan*, **G3WZD** (CWops #1979)
NewsAndNotes@CWops.org



#### **How We Were**

#### lan Capon, GWØKRL

G4HLN, Larry Bennett, CWops #3073



"I first discovered short wave radio at the age of 13, when I found that I could receive broadcast stations from all over the world on my late father's old valve receiver. As I became more interested, I was bought a multi-band receiver followed by my first 'real' communications receiver, a Trio 9R-59DS. As there were no local radio clubs specialising in broadcast band listening, I formed my own club, the publicity for which featured the attached photograph when I was just 16 years old.

I soon became aware that I could also pick up signals from radio amateur stations worldwide, which aroused my interest further. On leaving school I enrolled on a Radio Officer's course at my local technical college, which allowed me to take my radio amateur's examination course at no extra cost! I passed the exam without any problem, and took my cw test at Portishead Radio/GKA in 1978. Some 18 months later, having obtained my maritime radio and radar qualifications, I became employed as a Radio Officer at the station, and worked there for over 20 years until it closed in 2000. The rest is history, as they say..."

So now it's your turn, do you have a picture to share accompanied by a brief paragraph description, of your early days in radio, experimenting, exploring or just "being a ham".

Please send it to <u>lan Capon</u>.

**73, Ian GWØKRL** (CWops #2896)



## **RADIALS** and the Three Snowmen

Jack Schuster, W1WEF (CWops #48)

My wife loves snowmen. Wherever you look in our house you can see a snowman!

When I saw these guys in Home Depot this winter, I though they would be great to have outside our slider, looking in. These are not the common blow up guys, they are rigid and an ingenious design from China. They are collapsible like a pancake.

From our living room couch, we can look out the slider and enjoy seeing them looking in. At night, I can plug them into the outlet on the deck, and they light up with LEDs inside. Very neat! However it was a pain to go out to plug them in, and to unplug them, especially since the latest electrical code outlet cover makes it necessary to get down on my knees to see what I'm doing.

So what does this have to do with Ham Radio? (no, the snowmen are not three phased verticals...hmm) To make it easier to turn them on and off at night, I thought it would be nice to have a remote control. Googling what I wanted on Amazon, I had one the next day. I could now turn them on and off from inside the living room.

After recently reading a recent article by Chuck, W1HIS, which said that radials should never be connected to the ground and that only a few elevated radials are sufficient, I decided to conduct an experiment on my 160 inverted L. Although the experiment was inconclusive and flawed, it was fun and interesting.

The way my 75 radials are connected at the base of my antenna, I can easily remove them. My experiment was to compare one elevated radial to the ground radials. I cobbled together a relay with a wall wart that I placed at the base of the antenna. I ran a power cord out to the relay box, and powered the cord 65 ft away in the garage. Inside the garage, I plugged the power cord into my snowman remote control. Now I could switch between ONE radial, and a group of about a dozen radials, all pointed in the same direction. I could push a button at my operating position and switch between the two configurations (when the ground radials were switched in, so was the ONE elevated radial).



To make on the air comparisons, I made a sked with NA8V in Mi, K7SV in Va, and NWØM in Mo. The consensus was that I was one S unit louder with the radials connected, compared to the single radial. I frankly was surprised that the results were that close.



Why do I say the experiment was flawed? Was there mutual coupling to all those radials that were unconnected? Was there coupling to the power cord? Was a single radial a good representation of elevated radials? The elevated radial was only about 5 ft above the ground and on 160 should have been higher. There was no easy way to connect all 75 radials to the relay.

John Devoldere ON4UN, (sk) once published that you only need one radial. I tried it, and it was great being able to tune for 1:1 SWR by adjusting the radial length. I could see that it didn't play as well as when I had multiple radials though, and in a subsequent QSO with John he let on that he overlooked the fact that his one radial antenna was on top of a field of radials that he forgot about, and that probably had something to do with how it performed.

I originally titled this "W1HIS and the Snowmen". Chuck is a retired MIT professor for whom I have great respect. I suggested that if this was an experiment I designed in his class he probably would have flunked me, but because he liked the idea of the remote relay, he told me he would not have given me an "F"...hi. Boy am I glad I'm not in school...I got my MSEE 55 years ago!



# **VP8G DXpedition Report**

# **Gerben Menting, PG5M** (CWops #3576)

Like most other DXpeditioners, I am constantly exploring destinations for my next DXpedition. This search is not simply a look on the Most Wanted List, but also involves all aspects of how to get there/accessibility, can it be a suitable location for setting up station, powsupply, local support, etc. For me there is also an element of general interest in remote locations.



The Falkland Islands was one of the destinations that I always had an interest in visiting. But how does it rank on the MWL? You never see this mentioned as a highly demanded country for DXers. However, when I looked at the MWL in a bit more detail, I found out that it ranks low for SSB and Digital, but for CW it was surprisingly high. The table below shows the details for most continents. As a CW operator, my interest was born, and I decided to take further steps to start this project.

Rank	EU	W-EU	E-EU	NA	NA-W	NA-E	AS	VK/ZL	Global
CW	27	36	23	38	54	37	27	24	30
SSB	204	217	193	223	234	205	171	187	
Digi	218	225	208	234	246	225	205	158	

Source: Clublog

Some time later, Jose CT1BOH posted an even more detailed chart on X, confirming my analysis.



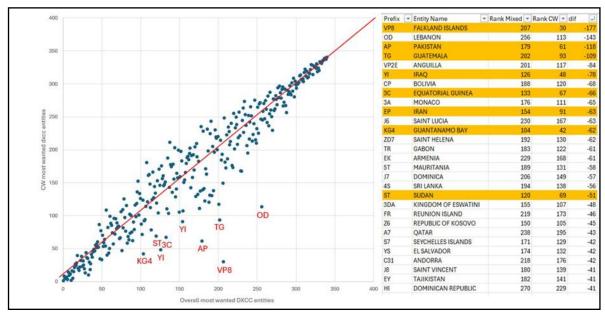


Figure 1 - Courtesy of Jose Nunes, CT1BOH

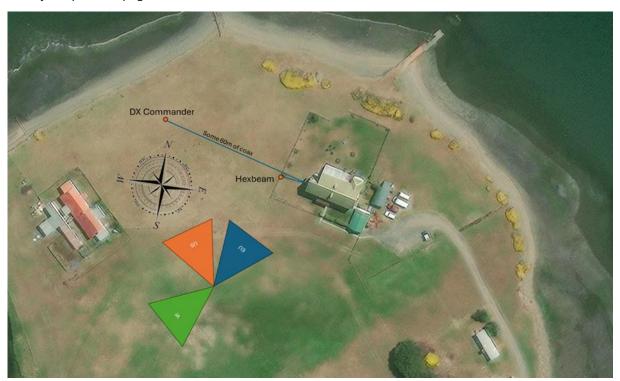
First thing to obtain a license and that turned out to be easy. I requested the VP8G call sign and to my surprise, I got the license with the VP8G call sign in just 2 days after the application. Now I had to find a suitable location and the transport to the island.

In general, it is not too easy to find hotels that have sufficient space around for setting up antenna, but even when they have, they will not allow you to do so. The other issue is the use of LED lights and solar panels that cause interference. When I was surfing the internet for radio operations from the Falklands, I came across a report from G3ZAY and G7VJR who were operating from Darwin Lodge in 2010. When I looked it up on Google Earth, I could understand why they took that location. Close to water and just three other houses in the area. I contacted the hotel with the request if I could use my radio station when staying at their place. I quickly got a positive response. Next, I started to ask questions about whether I could place antennas in the area around the hotel, if cables could be brought into the room and if there was ample table space to place my radio equipment. It was advised that Renato, the manager, should answer all these questions.

Renato turned out to be a perfect host and did everything possible to help me get things organized. He made pictures and video clips to show the details of my room. When I showed him a picture of the planned setup, he told me he would replace the twin bed with a single bed and put two dining tables in the room. With that, my room was well prepared.

The other remaining part was transportation. I had heard that military flights were available from the UK, so I started to explore that choice. There is a military base at Brize Norton (close to Oxford) from where they have regular flights to the Falklands, with a refueling stop at Ascension Island. These flights are operated by Air Tanker. There is a mixture of military and civil passengers on these flights. After a few enquiries I finally made a booking. Now the last piece was to travel from my home to Brize Norton. Flying from Amsterdam was not an option as you cannot fly to Brise Norton and would require extra road/rail transport. Finally, the most suitable possibility was to drive in my car to Brize Norton via the Calais Folkestone tunnel.





The flight would be at 00:35 local time, so I could make it the same day traveling by car. However, if anything went different (for instance with customs), or getting into trouble with the care, I would miss my flight. Therefore, I decided to travel one day earlier. One other issue was to find a place to park my car during the stay in the Falklands. After checking with several hotels in the neighborhood, I found one with enough guarded parking space and no extra costs.

With that, everything was in place to start my next DXpedition. For the setup of the station, I used the same configuration as I used for the VP6G Pitcairn operation.

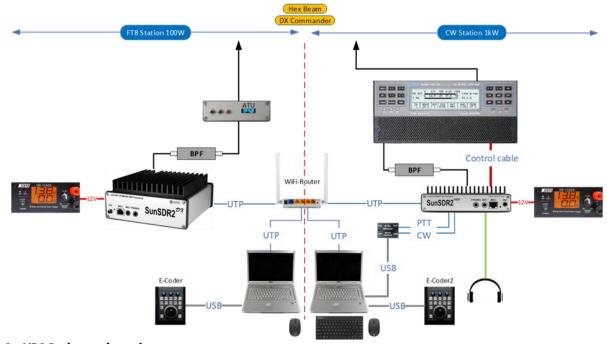


Figure 2 - VP8G planned station setup.



With the above configuration I would be able to run two stations in parallel, given enough distance between the antennas and using BPFs.

On the radio side nothing changed although I left the e-Coder for the FT8 station home as it helped to reduce weight. For the antenna-part, I choose again for the DX Commander and a Hexbeam. The DX Commander was a proven concept for me and the antenna was ready.

The Hexbeam was another case. At Pitcairn I used a lightweight G3TXQ DXpedition version Hexbeam. That version had issues with rain (causing high SWR) and took quite some time to assemble. I also donated that Hexbeam to a local HAM on Pitcairn. I needed a new Hexbeam and decided to buy the SP6CYN version. The Dutch distributor Ham Radio Land was so kind to sponsor me for a next DXpedition and offered the antenna for a reduced price. The antenna is of high quality and made of excellent quality materials. However, weight is always a crucial factor for planning my DXpeditions and assembling time is important. Therefore, I decided to build my own DXpedition-version Hexbeam.

After a lot of research and considerations, I was ready to construct my own version. I had decided to use the K4KIO design and use the SP6CYN fiber spreaders tubes as they are of particularly good quality. That meant using only aluminum for the metal parts, welding the spreader holders instead of using clamps and using different means of wire guides. This all helped to reduce weight and shorten the assembling time. A complete description of my Hexbeam is <a href="here on my web site">here on my web site</a>.

The next major hurdle was packing all equipment, materials, and personal stuff. The airline allowed each passenger to carry one suitcase with a weight of 27KG and hand carry a small bag of 9KG. Obviously, I would need more luggage, so the challenge was to get it all in two other suitcases/bags, each also 27KG. Since I needed a small 6m telescopic aluminum mast (for the Hexbeam), which 140cm long and the fiber spreader tubes of 125cm, it was necessary to carry this in a sturdy 150cm long bag. Also, the Spiderbeam pole for the DX Commander and the roll of 70m long coax cable were included which made it all together 27KG.

The second suitcase held the SPE amplifier, parts of the Hexbeam, a roll of 30m coax cable, guy wires, etc.

Finally, all together I had 3x 27KG of luggage plus a backpack.



Figure 3 - 81KG of luggage at check-in at Brize Norton RAF



Although the flight with Air Tanker looks like any other civilian flight, the booking is different. At the booking, you get one suitcase of 27KG, and hand carried luggage of 9KG included. Excess luggage cannot be booked in advance and needs to be requested only two weeks before departure. It should be noted that excess luggage is charged at GBP10/KG, not cheap! Explaining that I had to be sure that the excess luggage was necessary to travel with me, otherwise I had to cancel the whole trip, did not help. Two and a half weeks before departure I made my request for excess luggage, complete with a picture and dimensions. It was only on Monday that I got my confirmation for a flight on Wednesday!

On Tuesday morning at 05:00hr left home for a long drive to the UK. Everything went according to plan and arrived in my hotel around 16:00hr. Plenty of time to relax. I also received an e-mail saying that the flight would leave 2 hours earlier, now 22:35 on Wednesday instead of 00:35 on Thursday. The next day I took a taxi at 16:30hr to the Brize Norton air base. From that moment it was unclear to me what exactly would happen. First, we were picked up from the main gate by a minibus to transport us to the air terminal. The rest was like any other check-in at an airport and the many hours of waiting started.

The flight to the Falklands made a refueling stop of 2 hours on Ascension Island. We arrived around 14:00hr local time (GMT-3) at Mount Pleasant, the RAF air base. I was collected by Renato, the manager of Darwin House. It took 45 minutes to reach the hotel at Darwin Settlement.

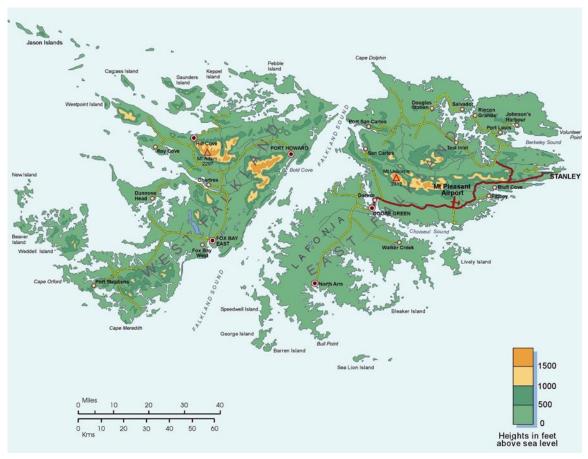


Figure 4 - Courtesy of Mapsland



Because the flight came in earlier gave me extra time on Thursday 14 November to work outside on the antennas. Most important was to have an antenna that could also cover the lower bands during the night, and therefore I started to work on the DX Commander. The weather was good (no rain and mild winds) and at that time I did not realize how different the weather could be.

First, I rolled out the 70m coax cable to allocate the place for the DX Commander. After the DX Commander was set up and provided with a second set of guy wires higher up the mast, the outside work for that day was finished. The next day Mario VP8A/VP8EME came by as a surprise. It turned out that he also has a house at Darwin settlement, just some 200 meters away from the hotel. We had a nice conversation and also briefly discussed the antenna guying. I mentioned that I brought some small guy anchors, as bringing large anchors would be very costly. Not much later he delivered 5 large guy anchors which I used to replace for my own anchors at the DX Commander. Later this proved to be essential for keeping the mast up during the storm.



Figure 5 - DX Commander with 2 sets of guy wires





Figure 6 - 32 radials, 3.5 meters long and extra-large guy anchors.

Next, I started to assemble the radios. As mentioned before, Renato had converted the room into a real amateur radio shack. There was enough space to create a convenient operating position. The two coax cables were entering the room via a window.



Figure 7 - Very comfortable and "Radio Shack"

After everything was connected and tested, I started my CW operation and had my first QSO on 15 November at 17:26Z with N4RJ on 12m. From that moment the pile-up started.



The next day, I started at 07:00 local time to assemble the Hexbeam. Putting the antenna together and fixing the antenna wires was a bit difficult with the strong wind.

Putting a Hexbeam on a mast can be a real challenge. During my preparation, I asked Renato (manager Darwin Hotel) if he had a tall ladder and if there would be someone to help me set up the Hexbeam. Later I reviewed many pictures of the hotel and found that the fence was made with big wooden poles about 1.5m high which could be a good base for the telescopic mast.

When the Hexbeam was ready, I fixed the telescopic mast to a pole of the fence, using two straps and tie wraps. Even without guy wires, the mast could not move anymore, so did not need someone to support me. With a short stair, I was able to place the Hexbeam on the mast and pushed the sections up and secured them with the clamps. After that, the four guy wires were fixed to the fence and a guy anchor.

I fixed two ropes to two of the spreaders to be used to keep the antenna in position or to turn the antenna in position. A quite simple and effective method.

In total it took only a few hours to have the Hexbeam ready and connected to the radio. With that, the setup was completed, and I could focus only on operating. Later I experienced that unexpected work was waiting, due to the weather. As Falklanders say: "In the Falklands you can have 4 seasons in a day", something I have experienced during my stay.



Figure 8 - The Hexbeam fully assembled.

CW



Figure 9 - Hexbeam on an approx. 5m tall mast which was fixed with straps to a pole of the fence.

#### 16-11-2024

In the morning it was nice sunny weather but, in the afternoon, heavy wind with snow and hail. I was happy the outside work was completed.

I had issues getting the second FT8 station working. Finally got the SunSDR2 DX working with FT8 and in the evening, I started with FT8 on 40m and CW on 20m, using BPFs but had to reduce power to 400W on CW.

#### 17-11-2024

I woke up around 04:00 and took a shower and started working on 40m CW with full power. Had a huge pileup from Japan with strong signals and a very quiet band. Later I changed bands.

Interestingly, Japan was to the south, but there is a high hill nearby in southern direction but JA's were very loud with my Hexbeam pointing to the north.

In the afternoon it was raining.

#### 19-11-2024

From my operating position, I could look through the window and see the Hexbeam and the DX Commander in the distance. Although I have seen that the DX Commander was kept in position very well with the two guy sets, all of a sudden, I saw it was tilted. I went outside to see what was going on. It turned out that one of the clamps was not tightened enough and as a result one section glided down. In the heavy wind I could not do the repair work so took the antenna down and left it for a moment when there would be less wind.

(Continued on next page)



That day I made a short trip with Renato to visit Goose Green village, not far away from Darwin settlement.

#### 20-11-2024

We had strong winds and storm, and I was anxious watching the antennas. I was a bit concerned that things would go wrong and destroy my antennas.

Due to the storm, the 20m and 17m wires came loose from the fiber spreaders. Surprisingly, even with that situation, I was still able to work on the other bands.

The fact that the wires got loose from the wire guides is because I used open S-hooks. They are easy to install the wires, but now it turned out they are not a desirable choice for situations with heavy wind. Originally, I had chosen to use small stainless steel carabiner hooks. Obviously, back home I will replace the open S-hooks with stainless steel carabiner hooks.

The situation was now that the DX Commander was down and the Hexbeam had two bands that needed to be repaired. However, with the storm this was not possible. I did not want to lower the Hexbeam and not have the guy ropes securing the mast. I did not want to risk the mast to be damaged.



Figure 10 - DX Commander out of service.

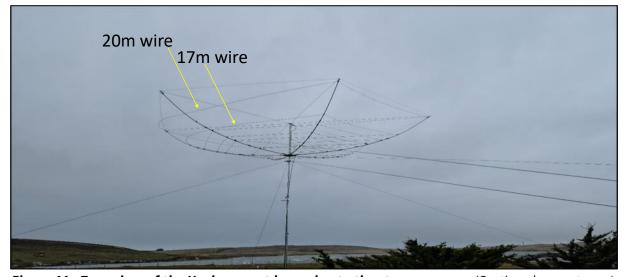


Figure 11 - Two wires of the Hexbeam got loose due to the storm.

(Continued on next page)



Renato asked me if I was interested in joining him for a trip to Port Stanley. With the antenna situation I thought it was a good opportunity. It was the only opportunity to see Port Stanley and started the 2-hour drive. During the visit to Port Stanley there was still a storm and sometimes it was difficult to keep yourself standing on the roadside.

I visited the museum, which was interesting and informative. There was also a small building about telecommunication. When visiting this part of the museum, I discovered that amateur radio and telegraphy were extensively exposed. A display with QSL cards, straight keys, radios, etc.

After returning back at the hotel in Darwin, the weather completely changed, and it was sunny with little wind. This was the right time to do the work on the antennas. I fixed the wires on the Hexbeam and brought the DX Commander in shape again. Together it took only 45 minutes. I was fully operational again.

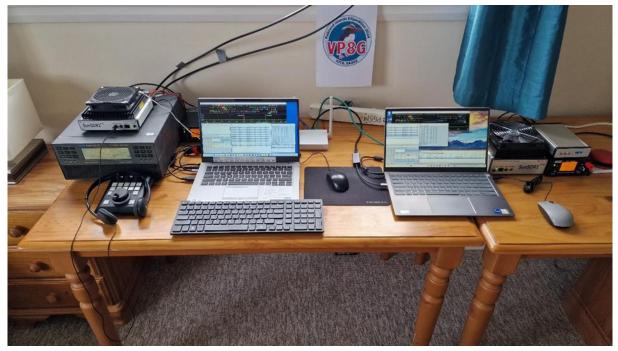


Figure 12 - A very convenient operating position.

#### 21-11-2024

Being on the Falklands, I wanted to see penguins in the wild, but it would need a journey to one of the penguin colonies. An unexpected opportunity happened as a visitor of the hotel had planned a trip to New Heaven, a place at the Falkland Sound and where the ferry goes to Port Howard on West Falkland. Fortunately, I could join this trip, so we went for a half hour drive to see the Gentoo penguins.





Figure 13 - Visiting the Gentoo penguin colony at New Heaven.

#### 23-11-2024

During the weekend of 23-24, there was the CQ WW DX CW Contest. Normally I try to avoid a contest during my stay, but based on the available flights, I could not avoid this one. During the contest weekend I had to focus on the WARC bands and FT8. However, even the FT8 segments were covered with contest stations and conditions were not that good on the higher WARC bands. As a result, the weekend resulted in fewer QSO's.

#### 25-11-2024

After 00:00Z I started to run CW on 40m for those who were still chasing me on that band.

Based on the experience with the weather during my stay, I did not want to risk taking down the antennas and bringing in all the materials during rain, hail/snow of storm. Therefore, I announced that I would operate till 12:00Z.

I first started to work on the DX Commander. I brought all the materials and wires to the yard of the hotel for further preparation and packing. Also, the 70m coax had to be coiled so it would fit in the bag again.

As the weather was favorable, I continued the operation until 13:08Z when I made the last QSO with HB9MEJ on 10m.

It took me till 18:00 local time to pack all antenna materials and after dinner I completed the packing of my luggage, ready for the trip back home.

#### 26-11-2024

The next morning, we left the hotel at 05:00 local time for the Mount Pleasant air base. After the check-in procedure, the waiting started again. On the flight back, we made a refueling stop on Ascension Island again.

(Continued on next page)



#### 27-11-2024

Back at Brize Norton air base early in the morning, things went smoothly. We were transported to the main gate from where I had to call a taxi to take me back to the hotel where my car was parked. It was a bit difficult to get a taxi and they all had long waiting times. When I finally was picked up by a taxi, I was told that there were floodings in the area and the reason for the delay.

When we came close to the hotel, the road was closed due to flooding. The taxi driver chose an alternative route but when we were about 500m from the hotel, the road was also closed due to the floodings. Fortunately, I had a truly kind taxi driver who took my heavy 27KG bag and carried it to the hotel entrance. I took my two suitcases and followed him.

I packed my luggage into my car and drove back to the Netherlands where I arrived at 21:00 local time back home.

#### **Results**

As explained, the demand was for CW contacts and that is where my focus was. With a MWL ranking of #27 for EU, I wanted to give priority to those who needed VP8 as an ATNO. With the good propagation, I had a preference to work on the highest possible band. Low band activities can be done by others at the time propagation is dying out on the higher bands and improving for low bands. Although also operated FT8, there was no intention to spend too much time on that mode.

Continent	40	30	20	17	15	12	10	6	All	%	CW	Digital
North America	277	398	378	450	283	369	616	1	2,772	25.6	2,088	684
South America	33	38	56	53	90	77	65	4	416	3.8	308	108
Europe	184	555	343	424	1,187	1,535	1,401		5,629	51.9	3,938	1,691
Africa	2	5	9	7	15	14	13		65	0.6	49	16
Asia	88	633	459	207	223	287	27		1,924	17.7	1,008	916
Oceania	1	2	17	6	6	4	2		38	0.4	9	29
	585	1.631	1.262	1.147	1.804	2.286	2.124	5	10.844	100	7.400	3,444

2024 DXPEDITION VP8G - Top 10 countries by QSOs - All - 10844 QSOs

CW

#### **Thanks**

I would like to thank several organizations and individuals for their support;

Renato, Carlos, and Stefanie who made my stay at Darwin House unforgettable.

The clubs and foundations that provided financial support; GDXF, CDXC, Clipperton DX Club, KC5WXA, NODXA, DDXG and Ham Radio Land. Further all the individuals that made financial contributions.

Last but not least, my QSL manager Charles MØOXO who again will provide excellent QSL services.



Figure 14 - The wonderful team of Darwin House: Carlos and Stephy, both chef, and Renato, the manager.

My website to view more details of the VP8G DXpedition and other DXpeditions: www.dx.to

73, Gerben - PG5M





# **Learning Morse**

# Fred Maas, KT5X (CWops #58)

Tactics for learning Morse have changed to shorten the experience, but learning processes are the same. People are different, and so is how different people learn. Your experience may differ.

It has long been recognized that there tend to be speed plateaus while learning Morse. The plateaus are at about 10, 18, and 26 wpm. Here is something of what those plateaus are.

The first step in learning is memorizing the code for each letter. The code is stored in short-term memory. When the code for a letter is heard, the learner searches what amounts to a look-up table for interpretation. The "search" in short term memory takes time and has a maximum speed of about 10 wpm. This is the first plateau.

The second step is when the look-up table moves from short-term memory into long-term memory allowing faster retrieval. This is why the General code test was 13 wpm! It was intended to be passed when the operator had achieved more permanent memory of the code. With continued practice, the speed of retrieval can rapidly improve up to a new limit around 18 wpm, hence the next plateau.

With continued and regular usage, the code can move from remembering and retrieving the code, to recognizing the sound of the letter by the language area of the brain. This is much faster, hence, the Extra class code test being set at 20 wpm. Achieving and passing 20 wpm represents an operator mastering Morse as a language.

Now the operator is hearing someone spell to them. They are copying the sound of letters. The speed can go on up from here, as in copying five letter code groups at considerable speeds. It is around 26 wpm that one may begin hearing syllables and words and interpreting true language of someone speaking to them in Morse.

It may be possible, but would seem surprising for someone to copy Morse without memorizing the code. A good speed for sending characters during early memorization is around 15 wpm with the letters spaced however much is needed to have time to retrieve the letter from short term memory.

The mind will choose to move the code from short term memory into long term memory with frequent repeated usage. The military trained operators by having them carry a buzzer and key on their belt and only allowed them to communicate in Morse. With almost constant usage, most were able to copy between 15 and 18 wpm in just a few weeks.

Occasional long practice sessions may not be as effective as many brief sessions for pressuring the mind to move the code from short term into long term memory. Sending can be as effective as receiving for most. It is the constant recall that shortens the learning process. A tactic used successfully by many is to send code in the mind for names of objects and words on signs often during the day. It is constant usage that will shorten the process.



The actual transfer from short term memory to long term memory happens in one's sleep. This is why one day a person may be struggling to copy with spacing at 10 wpm, and overnight can suddenly copy 15 wpm or more. Triumph!

With the code learned, memory moved from short term into long term memory, it is time to encourage movement into the language area of the mind. The stage is set to increase the speed at which letters are sent to around 23 wpm while leaving spacing of the letters below 18 wpm. Computer programs that move on to the next letter as soon as you type the letter may be a fabulous responsive learning aid.

The learner may feel free to continue to write (or type) the letters as that is how it is being copied. It is frequent usage, a few minutes at a time many times a day, rather than long intense sessions spaced apart by days, that will lead to most rapid improvement. The learner is copying letters, hearing someone spell to them, and may need to go back and read what was written to actually know what was said.

When able to copy accurately with letters sent around 23 wpm and properly spaced that the operator is ready for the next stage. The new goal is to copy syllables or short words as speech. One tactic is to put the pencil down, lean back and just listen. Letters and spacing at or just above 26 wpm seems to promote this level of copy.

It is likely up until now that if copying with a pencil, the learner is printing discreet letters. That is what is being heard. The operator may be surprised that it is difficult to force oneself to change over to *script*! Script is tying letters together. The same day that scripting copy becomes easy may be the same day that putting the pencil down and just listening becomes easy. When this happens, you will sit back and almost laugh out loud, it is so much fun!

People are different. The exact tactics for learning that are best for one person may be different for another, but the steps one is going through are the same.

There is often a relationship between dyslexia and auditory processing disorder which may impact learning Morse. Read about it here: <a href="https://www.succeedwithdyslexia.org/blog/dyslexia-and-auditory-processing-disorder%EF%BF%BC/">https://www.succeedwithdyslexia.org/blog/dyslexia-and-auditory-processing-disorder%EF%BF%BC/</a>

The HAAS Effect 1.

The Haas Effect is thought to be a built-in echo suppressor, but that is just a theory for it. Most people can no longer discern as discrete repeated identical sounds separated by around 20 ms or less. The ear hears it, but instead of two discrete sounds, the mind makes the first sound seem louder.

Twenty milliseconds is the length of a dit or a space at 60 wpm. This is the practical Morse speed limit for most people. There are exceptions. Some people don't exhibit the Haas Effect. There are a few operators who have been known to copy machine sent code upwards of 100 wpm! These same people may have difficulty understanding speech in an echo filled hallway.



Interestingly, the Haas Effect cuts out above about 1,500 cycles, possibly because higher frequencies don't echo well. An aside: I stop being able to copy at exactly 56 wpm. As an experiment, I once changed the pitch of a 75 wpm recorded code session to 1,700 cycles. To my astonishment, without trying to copy or even feeling like I was copying, I knew what was said. However, listening to the screeching Morse was not a pleasant experience!

The Haas Effect is put to use in what is called, "Surround Sound." If you have Surround Sound, you know how the addition of those little speakers behind you gives a sense of fullness to the sound. Sound sent to those speakers is the same as what is sent to the front speakers, but with a 20ms delay mimicking an echo.

Put your ear next to that little speaker. You hear nothing. NOTHING! (Unless you are one of the small percentage of people who don't have the Haas Effect). Put your fingers gently on the speaker. You will feel it vibrating. It is producing sound.

CW can make contacts with a smaller simpler radios while running less power than voice modes. It makes possible the use of small low powered radios in such activities as Summits On The Air. But also, it is just plain fun to be able to do it!

ENJOY the learning process !!! It's a "hobby" after all.

#### via Google Al

<sup>1.</sup> The Haas effect, also known as the precedence effect, is a psychoacoustic phenomenon that occurs when two similar sounds are heard as one sound if they are separated by a short time interval:

**Explanation**: The brain perceives the sound that arrives first as the origin of the sound, even if the sounds come from different directions. This is because the brain ignores duplicates and focuses on the strongest signal.

**Discovery**: Dr. Helmut Haas discovered the Haas effect in the 1940s.

**Use in music production**: The Haas effect can be used to create width and depth in a mix. For example, you can apply the Haas effect to a mono track, such as a guitar or synth, by placing a sample delay over it. You can also use the Haas effect on vocals to make them wider, or on background instruments to make them sound more ethereal.

CWops # 058, Fred has been a licensed radio operator for 67 years. He retired as an Educator after 42 years. He was the first SOTA activator in the Western Hemisphere to achieve Mountain Goat status, and to date has done over 1,000 activations, most over 10,000 ft elevation. He generally activates under the club call, WSOTA.



## **New Members**

#### **Trung Nguyen**, W6TN

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

<b>CWops</b>	Call	<u>Name</u>	<u>CWops</u>	Call	<u>Name</u>	<b>CWops</b>	Call	<b>Name</b>
3652	W8LVN*	Bill	3654	KK4E*	Don	3656	F4IEY*	Jules
3653	IT9KCD	Gae	3655	IT5GTR*	Les	3657	K5SJC	Steve

<sup>\*</sup> Lifetime member

As of January 14, 2025:

Need Sponsors: AE7EF, KI4AMD, WA8YWG, N4EWD

**Invitations Extended:** (none at this time)

For more details about nominees and up-to-date status, check the <u>"Members only"</u> page on the website. For information about joining CWops, check the <u>"Membership"</u> page on the website.

Notes: If you have updated your personal info, e.g., new QTH, new callsign, or additional callsign, please send it to <a href="mailto:membership@cwops.org">membership@cwops.org</a> 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.

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 <u>HERE</u> to update your contact information.



# **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 on-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 (GB hosts are shown in **bold**):

AAØYY	KGØGVX W4SAA	KØLRQ (2) WB5UTM	KO4TRB WA4WZR	K8ACW	KK4GFR	AE4QU	KI5EGH
GW2CWO	IU7BQV EA4HS	UA3X RZ3AEN	R4FDH IV3GSO	LA4RQ OK1SNY	OE1LZS OK1CAS	LB7DJ IZ5OVP	LA1IO
JG1UQD	JA4IIJ	JK1QYL	JA1SJR	JA0CTW			
JJ1FXF	7K3LXA JR6SBI	JL2SQK JH6EZL	HL1MIM(2) VK7DP	JA4BVH BI4JAD	JA4IIJ	JN1FAO	JA6BZH
JK1QYL	JJØSFV DS4HPW JA7KED	JQ3DIM DS5TXS JA4MRL	HL5JZ VK3DBD JK1WCW	JA6BZH JR2BOE	JL3TII 6L5TSF	JA4IIJ 7L2VPL	JO7GQF JL2SQK(2)
JM4AOA	7L2VPL JM1RRZ	JA6BZH(3) JN1FAO	JA7UHL JO1UFB	JK1GSM JQ7CKC	JK1QYL VK4JU	JK1WCW(2)	JL3TII
JO1DGE	6L5TSF	JA1NGA	JG7AJE	JHFVM	JK1QYL		
K7NJ	K2JZ KO4WFP	AC5P	K5QQ	K8LTJ	KC7WXD	N2AXX	KF2N
K8UDH	KO4JKV	NUØI	KB5YRB				
KV8Q	KØLRQ						
MØWDD	EA1FXB SMØDMY	EA5AKM	G3SHF	HA5BVG	MØIYP	OX2YN	SA2OLM
W8OV	W2FKN K3YES	VE3WH N8KR	K9CG NØTU	WØOV N7DZ	W4EDE AA2ZW	AAØYY KYØO	KE7LOY
7N2XZB	JK1PIG VK4PN	JA6BZH(2) JL2SQK	JN1FAO(2)	JK3LXS	JA4IIJ	HL5JZ	BD6IUT



# **Giving Back Operating Schedule - 7 PM Local**

October - April: 40m & 80m | May - September: 40m & 20m Frequencies: 7.035 - 7.039, 3.535 - 3.539, 14.035 - 14.039 MHz | JA - 7.028 +/-

	UTG			UTC: 0		UTC/DCT		EST	CST	MST	PST	Hawaii
UTC+11	UTC+9	UIC+7	UIC+3	UIC+2	UIC+1	UTC/BST	UIC-1	UTC-6	UTC-5	UTC-6	UTC-7	UTC-9
MON												
VK1CWO	JØ1DGE							W2XS				
TUE												
	JR1WYW	E25JRP		SV2BBK		GW2CWO		WE5P	K8UDH	K7NJ	W7ZDX	
	7N2XZB										K6RB	
WED												
								N8DD				
THURS												
	JJ1VNV			SV2BBK				KV8Q	N5OT	K7NJ	W7ZDX	
FRI												
	JK1QYL			SV2BBK		GW2CWO		N2GSL	AAØYY		K6RB	
						MØWDD						
SAT												
	JJ1FXF							W5DT				
	JM4AOA											
	JG1UQD											
SUN												
	JJ1FXF							W5DT				
	JM4AOA											

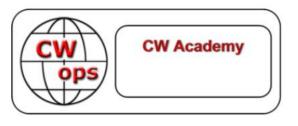


# **CW Academy**

# **Bob Carter**, WR7Q and Roland Smith, K7OJL

# **Coming CWA Curriculum Enhancements**

CW Academy 'officially' started in in August of 2011 with only the Intermediate class. Two years later the Beginner and Advanced levels were added and finally in 2018 the Fundamental class became the final course.



We have recently recognized that there is quite a 'gap' from the number of words (two to three) the students have learned in Fundamental and what we are expecting them to start with in Intermediate (entire stories). Also, as discussed previously, our focus has been as much on 'teaching typing' as on 'learning' to copy code.

Starting with May 2025 we are going to modify the Fundamental and Intermediate curriculums to put more emphasis on listening to sounds, rather than just characters and numbers. In the Intermediate course, the first few sessions will be short word list; phrases and QSOs copying practice. There will be examples of SOTA/POTA and the SST contest. We are also going to be emphasizing prefixes, suffixes, digraphs and trigraphs to enhance learning the sounds of words. Many of these will be accessible on our website or by using 'Word List' in MorseCode. World and on the Morse Code Ninja site.

Both authors the MorseCode.World, Stephen Phillips and MorseCode.Ninja Kurt Zogelmann, have assured me that their software and websites will be available long after they are gone, so we can continue to make use of them for a long time.

The new curriculum should be available for 'perusal' on or before April 1, 2025. As always, your input is welcome.

#### 2025 Jan/Feb Semester Students

	Beginner	Fundamental	Intermediate	Advanced	Total
Verified Student	515	187	116	127	85
Students who Declined	43	24	7	8	4
Assigned Students	472	163	109	119	81
Classes	68	27	14	16	11
Advisors	55				

73, Bob, WR7Q (CWops #1423), CWA Admin



# **CWops Tests (CWTs)**

#### Rich Ferch, VE3KI

It's time to report on the 2024 CWTs.

Participation in the CWTs is declining slowly from the peak levels seen in early 2022, both year-over-year and during the course of 2024. The average participation overall this year in the four CWT sessions was 348 in the 1300z CWT, 363 at 1900z, 236 at 0300z and 90 at 0700z.

In total, there were 53,921 CWT scores submitted in 2024 by 1,392 operators, in both cases a slight decrease from the numbers for the previous year. There were 135 CWops members who qualified for the gold medal participation level, 141 at the silver medal level and 131 at the bronze medal level. Once again, two of our members submitted claimed scores for all 208 CWTs: Phil K4PQC in a repeat of last year's performance, and Steve KO4VW.

The lists of members eligible for medallions for 2024 appear below. If you are on one of these lists and you want a personal certificate, you can go to the certificate web page at <a href="https://cwops.telegraphy.de/certificate/">https://cwops.telegraphy.de/certificate</a>, enter your callsign and download your 2024 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 at least one qualifying claimed CWT score in 2024 of 10 or more contacts (from NA or EU; 5 or more contacts from AF, AS, OC or SA), you can still download a personal certificate from the same web page, but you won't be eligible for a medallion. The participation certificates are available to non-members and members alike, whereas the gold, silver and bronze medallions are only available to CWops members in good standing as of December 31.

The medallions will be distributed to eligible members the same way this year as last year. This year there will be a \$15 USD fee for each medallion towards the procurement and ever-increasing mailing costs. First, you should check to make sure that you qualified for a medallion by checking the lists here (or in the Files area at the groups.io website, at <a href="https://cwops.groups.io/g/main/files/CWTmedals2024.txt">https://cwops.groups.io/g/main/files/CWTmedals2024.txt</a>). 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 <a href="https://cwops.org/cwops-tests/#medpay">https://cwops.org/cwops-tests/#medpay</a> (the payment submission area is 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 listsery and in the next issue of this newsletter.

The medallions will be distributed by regular mail. The mailing addresses used for sending the medallions will be the addresses on file with the CWops Membership Secretary as of the time of mailing (May-June, 2025). If your mailing address has changed or will have changed from the mailing address you reported at the time you joined CWops, you should make sure that the address on file is up to date; you can contact the Membership Secretary at <a href="membership@cwops.org">membership@cwops.org</a> to update your mailing address.

Enjoy the CWTs and keep those reported scores coming!

**73, Rich VE3KI** (CWops #783) CWT Manager

CW

# **GOLD**

9A1AA	K5GQ	N5RZ	W0TG
AA2IL	K7QA	N5TJ	W1QK
AA3B	K9WO	N5XE	W1TO
AD4EB	KA0PQW	N5ZO	W1UU
AF5DM	KB4DE	N6CHU	W2NRA
AF5J	KC7V	N7US	W4CMG
AG3I	KC8J	N9FZ	W4IT
AH6KO	KD2KW	NA8V	W4SPR
DJ1OJ	KG5U	NB7O	W5AL
DK9PY	KG9X	NF8M	W5LXS
DL1NKB	KI7Y	NJ3K	W5TM
EA6BF	KK0U	NJ8V	W6RIF
EA6EJ	KM4FO	NN4K	W7LG
G3LDI	KO4VW	NS8O	W7PEZ
G4DYC	KR2AA	OH1ZAA	W8EH
G4IVV	KR2Q	OK5MM	W8FJ
G4PFZ	KT4XN	PA0INA	W8LVN
HA6NL	KW7Q	PA2TA	W8MET
JN1THL	KY4GS	PA3AAV	WA3AAN
K0AF	MORYB	PE2K	WA6URY
K0PK	N0H0V	SM0HEV	WA9LEY
K0TG	N0TA	SM5ACQ	WA9MNF
K0VBU	N1AU	SM5GRD	WB4HRL
K1DJ	N2EY	SM5IMO	WB4SON
K1DW	N3CI	SM6CUK	WB7BWZ
K1RV	N3JT	SM7CIL	WG3J
K1VUT	N3QE	SP5LST	WJ0C
КЗАТО	N4BA	UX2HB	WN7S
K3JT	N4DT	VA3PM	WT8P
K3MM	N4DW	VE3KI	WU6P
K3WW	N4FP	VE3WH	
K4GM	N4ZZ	VE6RST	
K4PI	N5ER	VK2GR	
K4PQC	N5KD	W0GAS	
K4TZ	N5NA	WONY	

# **SILVER**

4X6GP	K3GG	N4GL	VE3NNT
AA2AD	K3WJV	N4GO	VE3TW
AA9WJ	K3ZA	N4KS	VE5GC
AB7MP	K4FN	N4LSJ	W0BM
AD4SA	K4IU	N4ZR	WOLPF
AD8J	K4RUM	N5AW	W1WEF
AE1T	K5UV	N5EE	W2NO
AI6O	K6RB	N5MI	W2VM W3FV
DD6CW	K7AZT	N5TOO	W3MA
DL6KVA	K8WWS	N7WY	W3US
DM6EE	K9CW	N8AA	W3WHK
EA1X	K9WX	ND9M	W4ER
EA3FZT	K9ZO	NE5A	W4LJ
F5SGI	KA3LXM	NN7O	W4RKU
F6JOE	KB3FW	NQ2W	W6KC
G0OOD	KB9S	OH2BN	W7RIP
G0TRT	KC3M	OK2NAJ	W7ZDX
G3LHJ	KC4WQ	OK2QA	W8EWH
G4HLN	KC9YL	OK4MM	W8FN
G4LPP	KE4KY	OZ3SM	W8OV
G4PVM	KJ9C	PA3DBS	W9ILY W9NXM
GW0KRL	KK7A	PC4H	WA3GM
I2WIJ	KT5C	SM1TDE	WA8KAN
I5EFO	KU9S	SM4DQE	WB5BKL
IK1YRA	KV0I	SM5SIC	WE8L
K0WA	KV8Q	SM60EF	WJ9B
K1AJ	M0LRQ	SP4JFR	WM4Q
K1BZ	M0XUU	SP5NZF	WM6Y
K1GU	MM0UM	SP7OGP	WR7T
K1IG	N0AC	VE3EJ	WS7L
K1RF	N1RO	VE3FP	WT3C
K1SEI	N2YO	VE3INE	WT9U
K1SM	N3OC	VE3KIU	WU8T WW3S
K2EJ	N3RD	VE3MA	ZA1RR
K2YR	N4BP	VE3MV	



# **BRONZE**

2E0OBO	HB9BJL	K7RL	LZ1ZF	OK2IW	W1KM	WO2T	W9CF
AC3RA	IK3VUT	K7UT	N1LN	PE2V	W1RM	VE3WH	WA3AER
AC6ZM	JJ1FXF	K8BZ	N2EIM	SA0BXV	W3ASW	VE6JF	WA4JUK
AD7N	K0EJ	K8LBQ	N2PX	SA6BGR	W3SA	VE9KK	WA5LXS
AE2DB	K0ES	K8PK	N3RTW	SM6DHF	W4MSL	VK3OU	WA5PFJ
AE5EZ	K0TQ	K9MA	N4AF	SM6JWR	W4RJF	W0BM	WB7DND
AE8Q	K1EBY	K9VEG	N4DPM	SP3FSM	W5LA	W0EJ	WD6T
AF8A	K3FH	KC2LSD	N4IQ	SP5JXK	W6AYC	WOLPF	WE4AUB
AH7RF	K3GHH	KD9KHA	N4NTO	SQ9S	W6SX	W1KM	WM4Q
AIOY	K3MD	KE2D	N4OI	VA3IK	W6TN	W2QL	WS5D
E70T	K3QP	KE4EA	N6HI	VA3SB	W7GF	W2XYZ	YO4AAC
G0TZZ	K4HR	KE6K	N6TTV	VA3TAR	W8BG	W3SA	WQ3E
G3WW	K4RO	KJ4M	N8EA	VE3SIF	W8CAR	W3UL	WS5D
G4HZV	K5AX	KJ5T	N9UNX	VE3TM	W9CF	W5LA	WT3K
G4IZZ	K5CM	KM4CH	NA4J	VE6JF	WA3AER	W6RIF	WV1D
G4KKU	K5OY	KO1H	NJ6Q	VE7KW	WA4JUK	W6TN	WX8C
G4RWD	K5VBA	KQ4E	NM2A	VE9KK	WA5LXS	W7GF	
G4YTK	K5VG	KQ4EFL	NU3A	VK3QB	WB4ABY	W7IY	
GM0LIR	K6AR	KY0Q	OH1NOA	VK5GG	WB5HOW	W7JRD	
GW0ETF	K6NR	LY2MM	OK1FCJ	VK6HG	WB7DND	W7RIP	
HA1AS	K7MK	LY8O	OK1RR	W0UO	WB8JAY	W8CAR	

# 2025 CWops Test (CWT) Schedule

Wednesdays at 1300 – 1400z and 1900 – 2000z. Thursdays at 0300 – 0400z and 0700 – 0800z.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Week 1	1-2	5-6	5-6	2-3	1	4-5	2-3	6-7	3-4	1-2	5-6	3-4
Week 2	8-9	12-13	12-13	9-10	7-8	11-12	9-10	13-14	10-11	8-9	12-13	10-11
Week 3	15-16	19-20	19-20	16-17	14-15	18-19	16-17	20-21	17-18	15-16	19-20	17-18
Week 4	22-23	26-27	26-27	23-24	21-22	25-26	23-24	27-28	24-25	22-23	26-27	24-25
Week 5	29-30			30	28-29		30-31			29-30		31



# **CWops Member Awards**

#### **Bill Gilliland, WØTG**



#### **Monthly Update**

During December, ten additional members submitted logs and the number of active participants in the awards program is currently 280. On Jan 1, 2025, ACA and ACMA totals reset to zero to begin the new year. This month's totals and the Top 100 reflect the year end totals for 2024. All other score categories are perpetual and will continue into 2025.

The ACA QSO totals and rankings for the end of December 2024 have KR2Q in first place and leading second place AA3B by 140 QSOs. The top ten ACA totals this month are: (1) KR2Q, (2) AA3B, (3) KY4GS, (4) N5RZ, (5) DL6KVA, (6) KO4VW, (7)K3WW, (8) N5ZO, (9) NA8V, and (10) KC7V. The separation between first place and tenth place is 498 QSOs.

The **ACMA** QSO totals and rankings for the end of December 2024 have **AA3B** in first place and leading second place **KR2Q** by 1013 QSOs. The top ten ACMA totals this month are: **(1) AA3B**, **(2) KR2Q**, **(3) N5RZ**, **(4) KY4GS**, **(5) DL6KVA**, **(6) NA8V**, **(7) N5ZO**, **(8) K7QA**, **(9) KC7V** and **(10) K3WW**. The separation between first place and tenth place is 2586 QSOs.

The **CMA** QSO totals and rankings for the end of December 2024 have **AA3B** in first place and leading second place **K3WW** by 3486 QSOs. The top ten CMA totals this month are: **(1) AA3B**, **(2) K3WW**, **(3) N5RZ**, **(4) N5ZO**, **(5) KR2Q**, **(6) DL6KVA**, **(7) NA8V**, **(8) W1RM**, **(9) F6HKA** and **(10) VE3KI**. The separation between first place and tenth place is 6437 QSOs.

During December, the number of participants who have contacted CWops members in 100 or more DXCC entities remained at **91**.

The number of participants who have accomplished CWops WAS grew to **261** this month with the addition of **WF4I**, **VE6JF**, **AD7N**, **K9CW**, **KD2KW** and **K8XCO**.

You can see complete rankings for all award categories at <a href="https://cwops.telegraphy.de/scores">https://cwops.telegraphy.de/scores</a>.

#### **CWops Award Tools Participation**

At the end of 2023 we had 271 active participants in the Member Awards Program. As of December 31, 2025, we have 280 active participants. If you have not yet submitted any logs for 2024, please do so soon, and we can include your score among the participants.

The Top 100 and the Searchable and Sortable Scores Table show rankings and scores for active participants only. To be an active participant and be included in awards scoring including the ACA, ACMA and CMA competitions, you must have submitted a log during the current year. To see rankings and scores for both active and inactive participants please use the Score Overview Table where inactive participants are listed with ACA and ACMA scores of zero, but their scores in other categories are listed at the highest level that was previously submitted.



You can see the final 2024 scores or final scores for any other 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 scores 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 <a href="https://cwops.org/cwops-tests/">https://cwops.org/cwops-tests/</a>.

#### **CWops Member Awards Program Overview**

Competition Award (ACA) recognizing the total number of CWops members contacted during the current year, Annual Cumulative Membership Award (ACMA) counting QSOs with members on all bands (once per band) during the current year, Cumulative Membership Award (CMA) counting QSOs with members on all bands (once per 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.

A set of tools for managing your awards status is provided on the CWops Award Tools website and if 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 <u>online tools</u>. For more details on the tools provided, see the <u>August 2021</u> *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**

View our website for more information on the <u>CWops Awards Program</u>. Send your feedback, questions or comments to <u>cwopscam@w0tg.com</u>.



## Here are the Top 100 ACA, ACMA and CMA QSO totals as of January 1, 2025.

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## **ACMA**

### **CMA**

	- "	
Rank	Call	ACA
1	KR2Q	1951
2	AA3B	1811
3	KY4GS	1678
4	N5RZ	1563
5	DL6KVA	1526
6	KO4VW	1499
7	K3WW	1495
8	N5ZO	1480
9	NA8V	1463
10	KC7V	1453
11	K7QA	1414
12	KG9X	1407
13	AA2IL	1363
14	N5TJ	1354
15	OM2VL	1348
16	N7US	1344
17	F6HKA	1330
18	K3QP	1299
19	N5AW	1284
20	K1VUT	1252
21	W4CMG	1230
22	WT9U	1225
23	WT3K	1202
24	K9WX	1200
24	W8FN	1200
25	VE3TM	1196
26	NJ3K	1195
27	VK2GR	1194
28	WN7S	1189
29	EA6EJ	1178
30	KOWA	1156
31	F5SGI	1134
32	NE5A	1134
	EA6BF	
33	-	1114
34 25	EA1X	1108
35	K6NR	1106
35	N5KD	1106
36	K1DJ	1104
37	K1EBY	1098
38	KM4FO	1077
39	K3JT	1067
40	9A1AA	1066
40	VE3KI	1066

Rank	Call	ACMA
1	AA3B	6716
2	KR2Q	5703
3	N5RZ	4983
3 4	KY4GS	4965 4746
5	DL6KVA	4697
6	NA8V	4592
7	N5ZO	4392
8	K7QA	4197
9	KC7V	4150
10	K3WW	4130
11	OM2VL	4068
12	KO4VW	3956
13	N5TJ	3646
14	KG9X	3637
15	N7US	3508
16	AA2IL	3357
17	N5AW	3257
18	K1VUT	3220
19	F6HKA	3043
20	WN7S	2975
21	WT9U	2916
22	K9WX	2896
23	W8FN	2846
24	EA1X	2775
25	K6NR	2764
26	EA6EJ	2701
27	NJ3K	2691
28	K0WA	2680
29	VE3TM	2679
30	W4CMG	2672
31	WT3K	2642
32	K3QP	2606
33	N5XE	2566
34	EA6BF	2553
35	WS7L	2527
36	W0U0	2472
37	VE3KI	2460
38	KM4FO	2412
39	VK2GR	2375
40	KW7Q	2337
41	DM6EE	2331
42	K3JT	2299
43	F5SGI	2286

Rank	Call	CMA
1	AA3B	14621
2	K3WW	11135
3	N5RZ	10257
4	N5ZO	10179
5	KR2Q	10002
6	DL6KVA	9511
7	NA8V	9478
8	W1RM	9366
9	F6HKA	8765
10	VE3KI	8184
11	K3WJV	8086
12	OM2VL	7723
13	K7QA	7653
14	KG9X	7618
15	N7US	7548
16	KC7V	7491
17	N5AW	7487
18	W9ILY	7008
19	WT9U	6891
20	K1VUT	6788
21	W0VX	6777
22	K3JT	6631
23	K9WX	6470
24	N4DW	6255
25	N5TJ	6064
26	K6NR	6042
27	KY4GS	6033
28	K1DJ	5944
29	N1DC	5942
30	SM6CUK	5925
31	N2UU	5923
32	K3PP	5902
33	K4IU	5873
34	W4WF	5847
35	WT3K	5839
36	WN7S	5707
37	9A1AA	5626
38	G4BUE	5387
39	W8FN	5383
40	AA5JF	5309
41	K1EBY	5297
42	AC6ZM	5190
43	W0U0	5189



42         KW7Q         1050         46         K1DJ         2224           43         N1DC         1036         47         OZ3SM         2206           44         WS7L         1026         48         N5KD         2196           45         NA4J         1021         49         K1EBY         2194           46         K1AJ         1014         50         K4IU         2186           47         AASJF         1009         51         W4WF         2175           48         W1RM         1005         52         K1AJ         2156           49         KKOU         1002         53         NA4J         2128           50         AC6ZM         1001         54         N1DC         2117           51         KD2KW         991         55         KKOU         2116           52         K3WJV         988         56         NE5A         2105           53         KTSV         987         56         KD2KW         2052           54         K1SM         982         57         W0VX         2052           54         K1SM         982         58         MORYB         207		ji om previe	12 -10
41       DM6EE       1057       45       K3WJV       2240         42       KW7Q       1050       46       K1DJ       2224         43       N1DC       1036       47       OZ3SM       2206         44       WS7L       1026       48       M5KD       2196         45       NA4J       1021       49       K1EBY       2194         46       K1AI       1014       50       K4IU       2186         47       AA5JF       1009       51       W4WF       2175         48       W1RM       1005       52       K1AJ       2156         49       KKOU       1002       53       NA4J       2128         50       AC6ZM       1001       54       M1DC       2117         51       KD2KW       991       55       KK0U       2116         52       K3WJV       988       56       NE5A       2105         53       KT5V       987       56       KD2KW       202         54       K1SM       982       58       MORYB       203         55       W4WF       978       59       AF5J       207 <tr< th=""><th></th><th>ACA</th><th></th></tr<>		ACA	
41       DM6EE       1057       45       K3WJV       2240         42       KW7Q       1050       46       K1DJ       2224         43       N1DC       1036       47       OZ3SM       2206         44       WS7L       1026       48       M5KD       2196         45       NA4J       1021       49       K1EBY       2194         46       K1AI       1014       50       K4IU       2186         47       AA5JF       1009       51       W4WF       2175         48       W1RM       1005       52       K1AJ       2156         49       KKOU       1002       53       NA4J       2128         50       AC6ZM       1001       54       M1DC       2117         51       KD2KW       991       55       KK0U       2116         52       K3WJV       988       56       NE5A       2105         53       KT5V       987       56       KD2KW       202         54       K1SM       982       58       M0RYB       203         55       W4WF       978       59       AF5J       207 <tr< th=""><th></th><th></th><th></th></tr<>			
41         DM6EE         1057         45         K3WIV         2240           42         KW7Q         1050         46         K1DJ         2224           43         N1DC         1036         47         O23SM         2206           44         WS7L         1026         48         N5KD         2196           45         NA4J         1021         49         K1EBY         2194           46         K1AJ         1014         50         K4IU         2186           47         AA5JF         1009         51         W4WF         2175           48         W1RM         1005         52         K1AJ         2156           49         KKOU         1002         53         NA4J         2128           50         AC6ZM         1001         54         N1DC         2116           51         KDZKW         991         55         KKOU         2116           52         K3WJV         988         56         NESA         2105           53         KT5V         987         56         KD2KW         2105           54         K1SM         982         57         WOVX         2	40	WOUO	1066
42         KW7Q         1050         46         KIDJ         2224           43         N1DC         1036         47         OZ3SM         2206           44         WS7L         1026         48         N5KD         2196           45         NA4J         1021         49         K1BY         2194           46         K1AJ         1014         50         K4IU         2186           47         AASJF         1009         51         W4WF         2175           48         W1RM         1005         52         K1AJ         2156           49         KKOU         1002         53         NA4J         2128           50         AC6ZM         1001         54         N1DC         2117           51         KD2KW         991         55         KKOU         2105           51         KD2KW         991         55         KKOU         2105           53         KT5V         987         56         KD2KW         2105           54         K1SM         982         57         W0VX         2092           54         K1SM         982         58         MORYB         279<			
43         N1DC         1036         47         OZ3SM         2206           44         WS7L         1026         48         N5KD         2196           45         NA4J         1021         49         K1EBY         2194           46         K1AJ         1014         50         K4IU         2186           47         AA5JF         1009         51         W4WF         2175           48         W1RM         1005         52         K1AJ         2128           49         KKOU         1002         53         NA4J         2128           50         AC6ZM         1001         54         N1DC         2117           51         KDZKW         991         55         KKOU         2116           52         K3WJV         988         56         NESA         2105           53         KT5V         987         56         KDZKW         2005           54         K1SM         982         57         W0VX         2092           54         K1SM         982         58         MORYB         2079           55         W4WF         978         59         AF5J         2077			
44         WS7L         1026         48         N5KD         2196           45         NA4J         1021         49         K1EBY         2194           46         K1AJ         1014         50         K4IU         2186           47         AASJF         1009         51         W4WF         2175           48         W1RM         1005         52         K1AJ         2156           49         KK0U         1002         53         NA4J         2128           50         AC6ZM         1001         54         N1DC         2117           51         KD2KW         991         55         KK0U         2116           52         K3WJV         988         56         NE5A         2105           53         KT5V         987         56         KD2KW         2105           54         K1SM         982         57         W0VX         2092           54         K1SM         982         57         W0VX         2092           55         W4WF         978         59         AF5J         2077           56         K4IU         968         60         W1RM         2062 <td></td> <td></td> <td></td>			
45         NA4J         1021         49         K1EBY         2194           46         K1AJ         1014         50         K4IU         2186           47         AA5JF         1009         51         W4WF         2175           48         W1RM         1005         52         K1AJ         2126           49         KK0U         1002         53         NA4J         2128           50         AC62M         1001         54         N1DC         2117           51         KD2KW         991         55         KK0U         2116           52         K3WJV         988         56         NE5A         2105           53         KT5V         987         56         KD2KW         2105           54         K1SM         982         57         W0VX         2092           54         K1SM         982         58         MORYB         2079           55         W4WF         978         59         AF5J         2079           55         W4WF         978         59         AF5J         2079           56         K4IU         968         60         W1RM         2062 <td></td> <td></td> <td></td>			
46         K1AJ         1014         50         K4IU         2186           47         AA5JF         1009         51         W4WF         2175           48         W1RM         1005         52         K1AJ         2156           49         KKOU         1001         54         N1DC         2117           50         AC6ZM         1001         54         N1DC         2117           51         KD2KW         991         55         KKOU         2116           52         K3WJV         988         56         NE5A         2105           53         KT5V         987         56         KD2KW         2105           54         K1SM         982         57         W0VX         2092           54         K1SM         982         57         W0VX         2092           54         K1SM         982         57         W0VX         2092           55         W4WF         978         59         AF5J         2077           56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         204			
47       AA5JF       1009       51       W4WF       2175         48       W1RM       1005       52       K1AJ       2156         49       KKOU       1002       53       NA4J       2128         50       AC6ZM       1001       54       N1DC       2117         51       KD2KW       991       55       KKOU       2116         52       K3WJV       988       56       NE5A       2105         53       KT5V       987       56       KD2KW       2105         54       K1SM       982       57       W0VX       2092         54       N5XE       982       58       M0RYB       2079         55       W4WF       978       59       AF5J       2077         56       K4IU       968       60       W1RM       2062         57       N9UNX       965       61       AC6ZM       2048         58       OZ3SM       959       62       SP1D       2039         59       N9FZ       957       63       SM6CUK       2019         60       W1AIT       954       64       N2UU       1980			
48         W1RM         1005         52         K1AJ         2156           49         KKOU         1002         53         NA4J         2128           50         AC6ZM         1001         54         N1DC         2117           51         KD2KW         991         55         KKOU         2116           52         K3WJV         988         56         NESA         2105           53         KTSV         987         56         KD2KW         2105           54         K1SM         982         57         W0VX         2092           54         N5XE         982         58         M0RYB         2079           55         W4WF         978         59         AF5J         2077           56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           61         KW1X         941         65         AA5JF         1957 </td <td></td> <td></td> <td></td>			
49         KKOU         1002         53         NA4J         2128           50         AC6ZM         1001         54         N1DC         2117           51         KD2KW         991         55         KKOU         2116           52         K3WJV         988         56         NE5A         2105           53         KTSV         987         56         KD2KW         2105           54         K1SM         982         57         WOVX         2092           54         N5XE         982         58         MORYB         2077           56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AIT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930<			
50       AC6ZM       1001       54       N1DC       2117         51       KD2KW       991       55       KKOU       2116         52       K3WJV       988       56       NE5A       2105         53       KT5V       987       56       KD2KW       2105         54       K1SM       982       57       WOVX       2092         54       NSXE       982       58       MORYB       2079         55       W4WF       978       59       AF5J       2077         56       K4IU       968       60       W1RM       2062         57       N9UNX       965       61       AC6ZM       2048         58       OZ3SM       959       62       SP1D       2039         59       N9FZ       957       63       SM6CUK       2019         60       W1AJT       954       64       N2UU       1980         61       KW1X       941       65       AA5JF       1957         62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889 <tr< td=""><td></td><td></td><td></td></tr<>			
51       KD2KW       991       55       KKOU       2116         52       K3WJV       988       56       NE5A       2105         53       KT5V       987       56       KD2KW       2105         54       K1SM       982       57       WOVX       2092         54       N5XE       982       58       MORYB       2079         55       W4WF       978       59       AF5J       2077         56       K4IU       968       60       W1RM       2062         57       N9UNX       965       61       AC6ZM       2048         58       OZ3SM       959       62       SP1D       2039         59       N9FZ       957       63       SM6CUK       2019         60       W1AIT       954       64       N2UU       1980         61       KW1X       941       65       AA5JF       1957         62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873			
52         K3WJV         988         56         NE5A         2105           53         KT5V         987         56         KD2KW         2105           54         K1SM         982         57         W0VX         2092           54         N5XE         982         58         MORYB         2079           55         W4WF         978         59         AF5J         2077           56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AJT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930           63         WA4JUK         927         67         VE9KK         1889           64         KV8Q         923         68         VE3MV         1872<			
53         KT5V         987         56         KD2KW         2105           54         K1SM         982         57         W0VX         2092           54         N5XE         982         58         MORYB         2079           55         W4WF         978         59         AF5J         2077           56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AJT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930           63         WA4JUK         927         67         VE9KK         89           64         KV8Q         923         68         VE3MV         1873           65         SM6CUK         918         69         W1A1T         1872<			
54         K1SM         982         57         W0VX         2092           54         N5XE         982         58         M0RYB         2079           55         W4WF         978         59         AF5J         2077           56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AJT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930           63         WA4JUK         927         67         VE9KK         1889           64         KV8Q         923         68         VE3MV         1873           65         SM6CUK         918         69         W1AJT         1872           66         W9ILY         912         70         WA9LEY         1			
54       N5XE       982       58       MORYB       2079         55       W4WF       978       59       AF5J       2077         56       K4IU       968       60       W1RM       2062         57       N9UNX       965       61       AC6ZM       2048         58       OZ3SM       959       62       SP1D       2039         59       N9FZ       957       63       SM6CUK       2019         60       W1AJT       954       64       N2UU       1980         61       KW1X       941       65       AA5JF       1957         62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831			
55         W4WF         978         59         AF5J         2077           56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AJT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930           63         WA4JUK         927         67         VE9KK         1889           64         KV8Q         923         68         VE3MV         1873           65         SM6CUK         918         69         W1AJT         1872           66         W9ILY         912         70         WA9LEY         1864           67         VE9KK         904         71         G4PVM         1852           68         MORYB         903         72         OK1RR <t< td=""><td></td><td></td><td></td></t<>			
56         K4IU         968         60         W1RM         2062           57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AJT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930           63         WA4JUK         927         67         VE9KK         1889           64         KV8Q         923         68         VE3MV         1873           65         SM6CUK         918         69         W1AJT         1872           66         W9ILY         912         70         WA9LEY         1864           67         VE9KK         904         71         G4PVM         1852           68         MORYB         903         72         OK1RR         1831           69         N2UU         896         73         KV8Q <t< td=""><td></td><td></td><td></td></t<>			
57         N9UNX         965         61         AC6ZM         2048           58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AJT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930           63         WA4JUK         927         67         VE9KK         1889           64         KV8Q         923         68         VE3MV         1873           65         SM6CUK         918         69         W1AJT         1872           66         W9ILY         912         70         WA9LEY         1864           67         VE9KK         904         71         G4PVM         1852           68         MORYB         903         72         OK1RR         1831           69         N2UU         896         73         KV8Q         1814           70         WOVX         895         74         DJ5CW         <			
58         OZ3SM         959         62         SP1D         2039           59         N9FZ         957         63         SM6CUK         2019           60         W1AJT         954         64         N2UU         1980           61         KW1X         941         65         AA5JF         1957           62         AF5J         928         66         N9UNX         1930           63         WA4JUK         927         67         VE9KK         1889           64         KV8Q         923         68         VE3MV         1873           65         SM6CUK         918         69         W1AJT         1872           66         W9ILY         912         70         WA9LEY         1864           67         VE9KK         904         71         G4PVM         1852           68         MORYB         903         72         OK1RR         1831           69         N2UU         896         73         KV8Q         1814           70         WOVX         895         74         DJ5CW         1812           71         KC4WQ         893         75         WA4JUK			968
59       N9FZ       957       63       SM6CUK       2019         60       W1AJT       954       64       N2UU       1980         61       KW1X       941       65       AA5JF       1957         62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1770	57	N9UNX	965
60       W1AJT       954       64       N2UU       1980         61       KW1X       941       65       AA5JF       1957         62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770	58	OZ3SM	959
61       KW1X       941       65       AA5JF       1957         62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       WOGAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1748	59	N9FZ	957
62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       WOGAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       W06P       1748	60	W1AJT	954
62       AF5J       928       66       N9UNX       1930         63       WA4JUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       WOGAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       W06P       1748	61	KW1X	941
63       WAAJUK       927       67       VE9KK       1889         64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       WOGAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747			
64       KV8Q       923       68       VE3MV       1873         65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       W0VX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729			
65       SM6CUK       918       69       W1AJT       1872         66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       M0RYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       W0VX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       W06P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718			
66       W9ILY       912       70       WA9LEY       1864         67       VE9KK       904       71       G4PVM       1852         68       M0RYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       W0VX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       W06P       1748         77       W39LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707			
67       VE9KK       904       71       G4PVM       1852         68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692 <tr< td=""><td></td><td></td><td></td></tr<>			
68       MORYB       903       72       OK1RR       1831         69       N2UU       896       73       KV8Q       1814         70       WOVX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       WOGAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688 <tr< td=""><td></td><td></td><td></td></tr<>			
69       N2UU       896       73       KV8Q       1814         70       W0VX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683 <tr< td=""><td></td><td></td><td></td></tr<>			
70       W0VX       895       74       DJ5CW       1812         71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645      <			
71       KC4WQ       893       75       WA4JUK       1807         72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1683         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631 <t< td=""><td></td><td></td><td></td></t<>			
72       K4TZ       888       76       W9ILY       1802         73       W0GAS       867       77       K1SM       1797         74       N3CKI       866       78       KW1X       1770         75       SP1D       865       79       K4GM       1764         76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621 <td></td> <td></td> <td></td>			
73         W0GAS         867         77         K1SM         1797           74         N3CKI         866         78         KW1X         1770           75         SP1D         865         79         K4GM         1764           76         N2EIM         862         80         WU6P         1748           77         WA9LEY         849         81         W0TG         1747           78         W2CDO         847         82         W2CDO         1729           79         K3ZA         846         83         W0GAS         1718           80         K4GM         845         84         KY0Q         1707           81         WU6P         841         85         N9FZ         1692           82         KY0Q         831         86         SM0HEV         1688           83         VA4ADM         829         87         W9CF         1683           84         DJ5CW         827         88         N3CKI         1645           85         KR3E         825         89         K4TZ         1631           86         W3WHK         813         90         KC4WQ         1621			
74         N3CKI         866         78         KW1X         1770           75         SP1D         865         79         K4GM         1764           76         N2EIM         862         80         WU6P         1748           77         WA9LEY         849         81         W0TG         1747           78         W2CDO         847         82         W2CDO         1729           79         K3ZA         846         83         W0GAS         1718           80         K4GM         845         84         KY0Q         1707           81         WU6P         841         85         N9FZ         1692           82         KY0Q         831         86         SM0HEV         1688           83         VA4ADM         829         87         W9CF         1683           84         DJ5CW         827         88         N3CKI         1645           85         KR3E         825         89         K4TZ         1631           86         W3WHK         813         90         KC4WQ         1621			
75         SP1D         865         79         K4GM         1764           76         N2EIM         862         80         WU6P         1748           77         WA9LEY         849         81         W0TG         1747           78         W2CDO         847         82         W2CDO         1729           79         K3ZA         846         83         W0GAS         1718           80         K4GM         845         84         KY0Q         1707           81         WU6P         841         85         N9FZ         1692           82         KY0Q         831         86         SM0HEV         1688           83         VA4ADM         829         87         W9CF         1683           84         DJ5CW         827         88         N3CKI         1645           85         KR3E         825         89         K4TZ         1631           86         W3WHK         813         90         KC4WQ         1621			
76       N2EIM       862       80       WU6P       1748         77       WA9LEY       849       81       W0TG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621			
77       WA9LEY       849       81       WOTG       1747         78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621	75		865
78       W2CDO       847       82       W2CDO       1729         79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621	76	N2EIM	862
79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621	77	WA9LEY	849
79       K3ZA       846       83       W0GAS       1718         80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621	78	W2CDO	847
80       K4GM       845       84       KY0Q       1707         81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621		K3ZA	846
81       WU6P       841       85       N9FZ       1692         82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621			
82       KY0Q       831       86       SM0HEV       1688         83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621			
83       VA4ADM       829       87       W9CF       1683         84       DJ5CW       827       88       N3CKI       1645         85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621			
84     DJ5CW     827     88     N3CKI     1645       85     KR3E     825     89     K4TZ     1631       86     W3WHK     813     90     KC4WQ     1621			
85       KR3E       825       89       K4TZ       1631         86       W3WHK       813       90       KC4WQ       1621			
86 W3WHK 813 90 KC4WQ 1621			
87 VESINE 812 91 KISV 1615			
	8/	VESINE	812



	ACA	
88	FA2KV	803
89	OK1RR	801
90	W1EQ	797
91	LA80M	790
92	AD7N	788
93	W8EWH	786
94	VE3MV	778
95	G4PVM	772
96	W9CF	769
97	K0TC	753
98	WS1L	741
99	GW0ETF	740
100	SM0HEV	739

ACMA	

92	K3ZA	1599
93	W3WHK	1589
94	LA8OM	1549
95	WS1L	1524
96	HB9ARF	1499
96	VE7KW	1499
97	K0TC	1487
98	K4PQC	1470
99	KR3E	1458
100	EA2KV	1427

#### CMA

92	KK0U	3773
93	W2CDO	3731
94	W4CMG	3667
95	MORYB	3652
96	AF4T	3586
97	AF8A	3543
98	<b>SMOHEV</b>	3540
99	WOGAS	3539
100	KW7Q	3522



73, Bill WØTG (CWops #1873)

**CWops Operating Awards** 



# QTX Report: Enjoying the Art of Conversational CW

Enzo, MØKTZ

It is always tempting to set personal goals at the start of a new year, and it is also very easy to set those goals too far from our own reach HI. That is why I normally avoid to fall in that trap. I rather prefer looking back at the year which has just past, and spend a moment appreciating the good things that have happened to me in the last 12 months. 2024 has been my second year in service as QTX/MQTX facilitator. It has been quite a fun and interesting ride so far, and the whole business has been made easier and very enjoyable by the support and encouragement you all have provided me with. I thank you for that.

2024 has also probably been the best year so far for the QTX/MQTX activity. We have seen a lot of fellows reporting their monthly QTX and MQTX scores (52 for QTX, 48 for MQTX), and the total is just short of 3000 hours of QSOs (up from the 2800 recorded in 2023). That is no less than about 58 hours per QTX/MQTX participant, on average, which is again higher than the same average for 2023 (around 53 hours). And that's just an underestimation, as in my count each QTX is worth 20 minutes and each MQTX is just 10 minutes, while we know that many of our chats end up lasting much longer. It is nice to note that such an impressive increase in activity has hap-



pened despite some members have repeatedly lamented "less activity", and "low months", and "not enough time for ragchewing"! What if those fellows really had more time to spend on air? HI

More importantly, though, in the last year we have had several new friends joining the QTX/MQTX gang (including K4LFL Mark in December 2024, welcome!), and many of the "usual suspects" returning to submit their monthly scores and to share their on-air experience in the soapbox. We have had reports of members discovering (or re-discovering) the pleasure of ploughing through a QSO using a manual key (either a straight key, a sideswiper, or a bug); we have participated of the trepidation of members venturing for the first time into the unchartered land of QRP ragchewing; we have heard stories of members venturing into higher CW speeds; and we have read with trepidation about long chats on all sorts of topics, that have given us hours of sheer joy. We have also learned about several CW Academy advisors meeting one or more of their former CWA students on air, for what have been, in many case cases, among the best and most satisfying QSOs of a lifetime. We have seen records being broken, friendships being formed, interesting links between people and countries and cultures being discovered, reinforced, and fostered.

Overall, the strength of the QTX/MQTX activity, above and beyond the sheer numbers, testifies that conversational CW is a very important aspect of the hobby, for many people. And that it can create strong bonds and lasting friendships that would be impossible to forge otherwise. Conversational CW has kept us all entertained, linked, happy, and lively. It has made our 2024 more valuable and, in many ways, unforgettable. And this was only made possible by the many hams who dared and cared to spend time chatting with friends on the bands. That's you, my dear QTX/MQTX fellows, so thank YOU.

I wish you all a great 2025, filled with all you desire, and much more. And I also hope that you will find enough chances to enjoy conversations with our beloved CW, the only mode that speaks our minds and souls all the way through.

**72/73 de Enzo, MØKTZ** (CWops #3206)

#### 2024 Total Number of Hours Worked: 2989

(based on avg 20 min QTX, 10 min mQTX)

<u>Call</u>	Hr <u>s</u>	<u>Call</u>	<u>Hrs</u>	<u>Call</u>	<u>Hrs</u>	<u>Call</u>	<u>Hrs</u>	<u>Call</u>	<u>Hrs</u>
WA4IAR	503	KG5IEE	82.3	DG5CW	28.8	N9EEE	11.5	W6QX	2.5
VE3WH	256	KC0VKN	82.3	M0SDB	27.7	N5LB	11.3	N9FZ	2.5
KY4GS	217	N7HCN	77.5	MM0UMH	25.3	VK3QB	11	W9EBE	2.3
M0KTZ	196	F5IYJ	77.3	DF7TV	22.7	MI0WWB	10.8	K7VM	1.5
N8AI	169	M0MZB	75.5	KF6NCX	20.7	IU3QEZ	9.3	WT9Q	1.3
ND4K	166	AF4PX	46.8	K8UDH	18.5	W3WHK	9.2	N7BAS	1.3
AA0YY	127	PG4I	39.3	KG5SSB	16.7	AB0WW	7.2	AD4SA	1
KR2Q	121	N2DA	34.3	<b>GW0ETF</b>	15.3	G4IVV	5	JS2AHG	8.0
KB6NU	118	AJ1DM	32.7	K6DGW	14.8	W8OV	4.2	GW0KRL	0.7
K9OZ	105	WS1L	30	KE4I	13.8	KB4DE	2.8	K4LFL	0.3
WB4IT	88.8	YL3JD	29.8	N1ZX	11.7	G0DJA	2.7 (Cor	ntinued on ne.	xt page)





**DG5CW**: Although with 19 min "only" a MQTX, my nice chat with Jerry, VE3SPY, (yes, Tom & Jerry) stayed in my memory for this month as well as a 28 min chat with Enzo, MØKTZ, talking about the aging issue of Lineol's J-36 lables. My total numbers of qualifying QSOs here are low this month again, but having an eye on the resulting "Hours Worked" it is what it is in a busy Xmas month. Touching on the "scores" thing, I don't see to get any better scores in 2025 neither as hobby time will not grow. For now QRX es HNY 2025 to everyone!

**K4LFL**: This was the first time I ever tracked QSO duration; I only usually track QSO start time. I was surprised that it went for over a half-hour just to do canned QSO + some radio stuff + some new years stuff. This is fun; I'll start doing this more in 2025.

**KG5IEE**: Really good month of ragchews. One evening decided to get on with my old Kenwood TS-830S and the J-38 SK. Had folks lined up to work the old rig at the slower SK speeds. Much fun.

**W80V**: Had a nice QSO with Eric, NI4E #1372 while running 10 watts. Had a fun QSO when AAØYY, Mark #2809 dropped by for a half hour.

**N9FZ**: December was very slow for ragchewing for me but lack of numbers was made up for with an hour long QSO with KE8TBM. During the course of the QSO we changed key speeds and even got out our bugs. We topped out at about 30 wpm to really test ourselves.

**WA4IAR**: Thanks Enzo for taking the time to run the QTX program. It is a lot of fun and challenging to try to make the contacts each month.

**K90Z**: Finished the year strong with good band conditions and lots of great ragchews.

**MØSDB**: So that wraps up my first year taking part in the QTX awards and I have thoroughly enjoyed it. I hope to do much better in 2025 also.

**VK3QB**: December was a fun month. The highlight was a 28 minute Bug to Bug QSO at ~20-22wpm with Graeme VK5GG- this QSO also gaining my entry to the Bug Users Group. HNY to all.

**F5IYJ**: Wishing all the best to all telegraphers and their families.

**KB6NU**: For some reason, I set my personal bests this month. Thanks to everyone I worked.

**KCØVKN**: Had lots of nice QSO's this month, however, the one that sticks out was with KP4DX, Luis. The weather in MI was pretty poor that day, and Luis kindly did not share his weather report until after I had shared mine;)

**N6HCN**: It's so great to have a permanent antenna again-- picked up at least 2 S units so the QTX are in high gear with winter upon us.

**N2DA**: Enjoyable CW sked QSOs with lots of Holiday cheer! 73 es HNY!



**W1SL**: Many of the QTX were from the morning 3527 roundtables. For other interesting QSO's I worked Steve N7FUL and Brian, W9KVW, chatting about our bugs with both of them. Van, N5TOO and I chatted about college football and I caught Alan, W4QMC/1 on a holiday visit to New Hampshire.

**MØMZB**: This month I was pleased to chat with LA4CIA for 45mins. Also very pleased to catch K3WW and W1AAX - both for QTX chats, it always feels good to talk across the pond. Had a lovely talk with GM4HBG both from my home (for 30 mins) and on news years eve when we discussed QRP operation. I was then delighted to catch GM4HBG again, on the morning of 2nd January, from the summit of Seatallan at an elevation of 700m. I had camped up there overnight on the coldest night of the winter so far, with temperatures dropping to -8C and a windchill of -18C (25mph winds). It was very cold, but I had a good number of contacts once the geomagnetic storm had passed on the morning of 2/2/2025. You can just about see my portable setup on my sleeping bag in an icy tent: a QMX, BaMakey TPIII and a EFHW antenna.

**N8AI**: Talked with KCØCCR for 30 minutes about our engineering careers. He was a forensics expert. Many interesting QSO's available at 16 wpm or less.

**PG4I**: Excellent 30 minute QSO with Enzo on 80 meters, both using a sideswiper.

**AJ1DM**: Surprised to learn that I kept up a pretty normal level of ragchewing despite travel and flu (unintended Xmas gift from the grandchildren!). I thoroughly enjoy catching up with my friends through CW. 73 and I hope your 2025 is your best year ever!









### QTX - December 2024

<u>Call</u>	QTX	<u>Call</u>	QTX	<u>Call</u>	QTX	<u>Call</u>	<b>QTX</b>	<u>Call</u>	QTX
WA4IAR	105	KB6NU	35	N2DA	18	N5LB	6	ABØWW	2
WS1L	74	AA0YY	35	MØMZB	17	W8OV	4	VK3QB	1
VE3WH	63	N7HCN	34	KY4GS	11	DG5CW	4	N9FZ	1
N8AI	46	MØKTZ	29	KR2Q	10	K8UDH	4	K4LFL	1
KC0VKN	41	KG5IEE	19	AJ1DM	9	W3WHK	2	<b>GWØETF</b>	1
K9OZ	40	F5IYI	19	PG4I	7	MØSDB	2		

## MQTX - December 2024

<u>Call</u>	<b>MQTX</b>	<u>Call</u>	<u>MQTX</u>	<u>Call</u>	<u>MQTX</u>	<u>Call</u>	<u>MQTX</u>	<u>Call</u>	<u>MQTX</u>
MØKTZ	55	KG5IEE	31	DG5CW	19	KB4DE	6	VO8W	3
KY4GS	50	N8AI	26	MØMZB	16	PG4I	5	AJ1DM	3
VE3WH	39	AAØYY	26	VK3QB	14	N7HCN	5	ABØWW	3
WS1L	32	KB6NU	25	MØSDB	9	GWØETF	5	W3WHK	1
WA4IAR	32	KR2Q	20	MM0UMH	H 6	K8UDH	4		

## QTX - Totals 2024

<u>Call</u>	QTX	<u>Call</u>	QTX	<u>Call</u>	<u>QTX</u>	<u>Call</u>	QTX	<u>Call</u>	QTX
WA4IAR	1313	F5IYJ	232	MMØUMH	43	N1ZX	17	N9FZ	4
VE3WH	628	WB4IT	225	KF6NCX	39	DF7TV	13	KB4DE	4
ND4K	405	N7HCN	216	N5LB	32	IU3QEZ	12	N7BAS	3
N8AI	375	MØMZB	135	DG5CW	32	W8OV	10	K7VM	3
KB6NU	319	KG5IEE	122	MIØWWB	27	GWØETF	10	W6QX	2
K9OZ	315	N2DA	103	MØSDB	27	ABØWW	10	GØDJA	2
KY4GS	310	AF4PX	97	KG5SSB	26	YL3JD	8	K4LFL	1
MØKTZ	306	AJ1DM	85	KE4I	26	G4IVV	7	AD4SA	1
AAØYY	262	PG4I	75	N9EEE	24	W9EBE	5		
KCØVKN	247	WS1L	74	W3WHK	20	VK3QB	5		
KR2Q	235	K8UDH	45	K6DGW	18	WT9Q	4		

### **MQTX - Totals 2024**

<u>Call</u>	<b>MQTX</b>	<u>Call M</u>	QTX	<u>Call</u>	<b>MQTX</b>	<u>Call</u>	<b>MQTX</b>	<u>Call</u>	<b>MQTX</b>
KY4GS	683	YL3JD	163	VK3QB	56	ABØWW	/ 23	W8OV	5
MØKTZ	563	MØSDB	112	K6DGW	53	N9EEE	21	JS2AHG	5
WA4IAR	390	DF7TV	110	KG5SSB	48	K8UDH	21	W9EBE	4
VE3WH	281	DG5CW	109	KF6NCX	46	G4IVV	16	N5LB	4
KR2Q	274	AF4PX	87	N1ZX	36	W3WHK	15	GWØKRL	. 4
N8AI	262	PG4I	86	N7HCN	33	GØDJA	12	AD4SA	4
KG5IEE	250	WB4IT	83	WS1L	32	W6QX	11	K7VM	3
AAØYY	240	GWØETF	72	IU3QEZ	32	MIØWW	'B 11	N7BAS	2
ND4K	183	KB6NU	70	KE4I	31	KB4DE	9		
M0MZB	183	MMØUMH	66	AJ1DM	26	N9FZ	7		



## My Story: New Member Introductions

Compiled by <u>Tim Gennett</u>, K9WX (CWops #1462)

#### Eugenio Claramunt "Gene" Vega EA4KA CWops #3650

My journey as a radio amateur began in 1983 when I obtained my first novice license, EC4BMX. A year later, in 1984, I earned my Class A license with the callsign EA4DAS, and in 1987, I adopted my current callsign, EA4KA.

From the very beginning, CW has been my primary passion, particularly QRQ. My dedication to this mode allowed me to achieve a few prestigious awards such as HSC #1341 in November 1985, VHSC #210 in March 1986, SHSC #80 also in March 1986, and EHSC #50 in October 1986.

Throughout my life as a radio amateur, I've had the honor of participating in several DXpeditions and international contests as an operator. Some of the highlights of my career include operating as TGØR in September 2001 and 4W6R in 2008. I was also part of the CT3M team during the CQ WW CW 1989, and the EA9EA team during the CQ WW CW 1992, both of which achieved world championship titles.



Today, my station is simple yet effective. I operate with an IC-7300 and use OB11-3 and Windom antennas for low bands. I still enjoy contesting, participating in major events like CQWW CW, WPX CW, ARRL DX CW, and ARRL 10M CW. However, my main activity remains QRQ, which I practice whenever I find operators willing to work at speeds above 50 wpm.

In Spain, there are only a few amateurs interested in QRQ, but I'm fortunate to share this passion with dedicated operators such as EA3M (Roger), EA4BB (Nando), EA4JI (Carlos), EA6EJ (Ini), EA6BF (Josep), and EA7HAA (José). I also have a special friendship with CT1BQH (Carlos), with whom I regularly enjoy QSOs in Spanish at speeds exceeding 60 wpm.

Although I would love to master other languages to engage in conversational QRQ with operators from different countries, I recognize that, at the tender age of 74, this goal might be a bit out of reach. Nonetheless, I continue to enjoy every contact, every challenge, and every opportunity that amateur radio brings my way.

For me, ham radio is not just a hobby but a way of life that has allowed me to meet amazing people, explore new horizons, and push my own limits, especially in the world of CW. I look forward to continuing to share this passion with all of you for many more years to come.



#### **Bill Lederer, W8LVN CWops #3652**

Thanks so much to K9CT, W6SX, KC7V, N3JT, W8OV, N7US, K4GM, KT5C, KR2Q, K1EBY, K1DJ for sponsoring me.

I grew up on a wheat farm on the prairie near Conrad, Montana. I was first licensed in 1961 as KN7QVF after encouragement from Sam Zuidema, K7HR (formerly K7EGA) and W7BFW (SK).

I took the Novice exam before I thought I was ready, but Sam pushed me. I passed, and shortly got on the air with a used Knight Kit T50 and an Ocean Hopper regen receiver. My first key was a J-38. I regularly listened to a Navy station, (NPG?) just above 80 meters. I would mimic their repeat loop of code with my CPO, and for a while I had a very good hand.



I built a keyer from the ARRL handbook using a pair of 12AU7 tubes, driven by a Vibroplex with the dot side spring disabled. Man, was that very frustrating to learn!

My Dad had a 1927 Zenith console radio that covered the short wave bands. I added a Heathkit Q-multiplier and used the Ocean Hopper tuned to 455 to oscillate as a BFO. Made many Novice QSOs with that. Due to constant practice, my code speed increased about 5 wpm each month until I reached 40 wpm.

I once worked W7QYA, Flo (SK) at 40 wpm, but she said it was too slow for her.

I spent significant time in CW traffic nets, and once even ended being net control for the Idaho net.

My goal was to achieve Extra Class as soon as I could. As soon as I felt comfortable at 13, I took the Conditional exam from Sam and became K7QVF. This class of license was available to anyone that lived more than a certain distance from a regular (4 times/year) FCC examination station. Great Falls had an FCC examiner once a year. In order to achieve Extra class, you needed to have a General class license for at least two years. So I took a day off from school and had my dad drive me down to Great Falls (60 miles) to take the General and passed.

Two years to the day after that, I again persuaded my dad to drive down again and successfully passed the Extra Class. I recall that one of the exam questions was to draw the circuit diagram for a Colpitts oscillator. The only hitch I had was that I couldn't reliably send 20 wpm any more with a straight key. So, I went to the car and got the bug and successfully passed that part. I then received my Extra Class at the age of 16.



The highlight of my ham radio career was with N9PD club (part of North Shore Radio Club) traveling to Vanuatu just before the 2000 CQ WW CW contest.

The organizers, KF9ZZ (now KF4ZZ), and W9YK knew that if it was a CW contest, they could get me to come. Our club was the first to post QSOs in near-real time during a contest. I persuaded the team to try 160. We did erect a dipole that might have been 10 feet high at the highest. And we had only 5 feet of wire left over in a location that had no radio shack. My favorite QSO was with VE1ZZ on 160. Two nights previous, in an 80 m QSO, he said "Meet me on 160 at 1234z tomorrow." Due to a run on 80, I was two minutes late. We tried again the next night and were successful.

I'm active in contests, CWT, and POTA hunting. Almost all of my operating is CW.

#### Gaetano G. Giardina, IT9KCD, CWops #3653

Mi chiamo Gaetano G. Giardina, ho 52 anni e sono un cittadino italiano, precisamente della splendida regione siciliana. Sin da quando ero bambino, la mia passione per la radio ha sempre fatto parte della mia vita. Ricordo con piacere i momenti passati con gli amici, mentre ci divertivamo a giocare con i walkietalkie, cercando di entrare in contatto con chiunque riuscissimo a sentire. Quell'esperienza ha acceso in me una curiosità che non mi ha mai lasciato.

Nel 1989 ho ottenuto la licenza "Citizen Band" (CB), un primo passo che mi ha permesso di entrare nel mondo delle comunicazioni radio. Ma la vera svolta è arrivata nel 2006, quando ho deciso di sostenere gli esami per la licenza radioamatoriale e, con grande soddisfazione, ho ottenuto il nominativo IT9KCD.



Questo traguardo mi ha permesso di avvicinarmi ancor di più a una passione che continuava a crescere dentro di me.

Oggi, grazie alla mia licenza radioamatoriale, posso collegarmi con tutto il mondo. La radio è diventata per me non solo un hobby, ma una vera e propria passione che mi consente di entrare in contatto con persone di culture e lingue diverse, di condividere esperienze e di imparare continuamente. Ogni collegamento radio è una nuova soddisfazione, ogni contatto un'opportunità per crescere.

Partecipare ai contest internazionali è una delle cose che più mi appassiona. Competere con altri radioamatori in tutto il mondo mi dà l'opportunità di testare le mie abilità, mettermi alla prova e, soprattutto, di fare nuove conoscenze. Ogni contest rappresenta una sfida che mi stimola a migliorare e a perfezionare sempre di più le mie competenze.



Sono felice di poter vivere questa passione, che continua a regalarmi emozioni e soddisfazioni ogni giorno. La radio è per me un modo per connettermi con il mondo, per scoprire cose nuove e, soprattutto, per continuare a crescere come radioamatore.

Concludo salutando con piacere chi sta leggendo questa mia esperienza e ringrazio di cuore il mio amico Gerardo IT9TJH che mi ha sempre sostenuto e incoraggiato sin dall'inizio. La sua amicizia e il suo supporto sono stati fondamentali nel mio percorso. Grazie di tutto! SU on the air.

My name is Gaetano G. Giardina, I am 52 years old, and I am an Italian citizen, specifically from the beautiful region of Sicily. Since I was a child, my passion for radio has always been part of my life. I fondly remember the moments spent with friends, while we had fun playing with walkie-talkies, trying to get in touch with anyone we could hear. That experience sparked a curiosity in me that has never left me.

In 1989 I obtained the "Citizen Band" (CB) license, a first step that allowed me to enter the world of radio communications. But the real turning point came in 2006, when I decided to take the exams for the amateur radio license and, with great satisfaction, I obtained the call sign IT9KCD. This achievement allowed me to get even closer to a passion that continued to grow inside me.

Today, thanks to my amateur radio license, I can connect with the whole world. For me, radio has become not just a hobby, but a real passion that allows me to get in touch with people of different cultures and languages, to share experiences and to learn continuously. Every radio connection is a new satisfaction, every contact an opportunity to grow.

Taking part in international contests is one of the things that I am most passionate about. Competing with other radio amateurs around the world gives me the opportunity to test my skills, put myself to the test and, above all, to meet new people. Each contest represents a challenge that stimulates me to improve and perfect my skills more and more.

I am happy to be able to live this passion, which continues to give me joy and satisfaction every day. For me, radio is a way to connect with the world, to discover new things and, above all, to continue to grow as a radio amateur.

I conclude by greeting with pleasure those who are reading this experience of mine and I thank my friend Gerardo IT9TJH who has always supported and encouraged me from the beginning. His friendship and support have been fundamental in my journey. Thank you for everything!

SU on the air.



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