

Solid Copy

The CW Operators Club Newsletter

November 2018 — Issue 106



Hamshack of the Future?



W8WZ looks at ham radio demographics, [page 14](#)

President's Message

October has faded and the seasonal changes are showing through the colors and temperatures that nature provides us. A lot of us will find more time for doing CWT's and rag-chewing since it gets dark and stays dark longer. Several new call signs and new CWops members are showing up in the CWT logs and we welcome all newcomers to the CW fold and hope they will work toward membership.



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CWops "CWT" Every Wednesday

Start: 13Z, 19Z, 03Z (+1), 1 hour each session

Exchange: name/number (members)
name/SPC (non-members)

Avoid DX pileups!

Next slow speed CWT is March 13-14, 2019

US Vanity 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"

13+ wpm practice: Tuesday, Friday, Sunday 6-8 pm "local time" 7.035-7.045

CWops Officers and Directors

President: Mac McDonald [NN4K](#)

Vice President: Peter Butler [W1UU](#)

Secretary: Jim Talens [N3JT](#)

Treasurer: Craig Thompson [K9CT](#)

Director: Stew Rolfe [GW0ETF](#)

Director: Nodir Tursoon-Zade [EY8MM](#)

Director: Raoul Coetzee [ZS1C](#)

Webmaster: Dan Romanchik [KB6NU](#)

Editor/Publisher: Tim Gennett [K9WX](#)

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The September – October CW Academy Classes for this year are complete and once again our Advisor corps has worked hard to create Morse Code communication opportunities for a large number of hams and SWLs. Actually, it's not hard work, but it is a dedicated energy directed at helping folks acquire and learn a new mode of communications. We are grateful for their service. Those who are just learning are no different than most of us who began our CW journeys years ago. We had help along the way and in turn we are working to see that the new folks get off to a good start. One of the ways we do that is operating our Wednesday CWT sessions on November 14th at 20 wpm max. The level I graduates, with some exceptions are not likely to be making contacts, but the Level II and III graduates will be equipped to join in. The next slow CWT session will happen in March 2019 on the second Wednesday of the month.

Solar Cycle 24 is still with us and as we bounce along the bottom of it the band propagation is both a challenge and an opportunity. I'm sure that most of us would like to be on the rising slope of the next cycle but we have to stay active so we will know when it starts. Propagation reports in the 3830scores.com shows how variable it is in the different regions. When some of our members are making high scores in spite of the conditions, I use that as encouragement that it can be done.

President's Message . . .

Solar Cycle 24 is still with us and as we bounce along the bottom of it the band propagation is both a challenge and an opportunity. I'm sure that most of us would like to be on the rising slope of the next cycle but we have to stay active so we will know when it starts.

When you look at calendars that track contests it seems like there are continuous activities going on year-round. Included are QSO Parties and smaller special interest activities. The major contests like ARRL and CQ Magazine sponsored contests are mostly in the October to March window. There is a mode activity available that could suit your tastes assuming you like to participate. But it's not always contests that keep us active. We have ample opportunity to practice by doing QTX (rag-chewing) and even awards for those who keep their records on the CWops reporting log. To help keep track of CWops activities, check out the CWops Award Management (CAM) software which makes it easier to manage one's data.

A progress report about reaching prospects for our Ambassador program is mentioned here. One of the hurdles I have faced in implementing more non-USA representatives has been how to communicate with someone when I don't know their language. It was a break-through when I listened to Dr. Scott Wright, (CWops #305), Editor of ARRL National Contest Journal give a presentation at the SEDCO – W4DXCC Convention in September. In his talk he spoke about using [Google Translate](#) in his activities in South America with

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hams and that's when it occurred to me to explore this with my objectives. I initiated a contact with a well-known ham in Brazil using Google Translate. I learned that I could type my message in English and it would create the mostly equivalent writing in Portuguese in the adjacent window on the monitor. Then I made a copy of the Portuguese text and pasted it into an email. I have seen some Facebook posts in Spanish that has a translate facility and the translation was a little bit off. So, I proceeded with some trepidation hoping that my thoughts would be clear and non-offensive. I tried to express my message in simple English statements, not in compound thoughts. I think that works best for the recipient. The first try was successful and the conversation is underway. I just hope it produces good results. More to follow as this process develops.

President's Message . . .

I have a favor to ask you as a CWops member. Club meetings that you attend are place to get the word out about our CW Academy and the free CW training we have available. The favor being requested is for you to announce that CW training is available and details [can be found at the CWops website](http://www.cwops.org/cwacademy).

The Call Sign Copy Competition was set up at the Stone Mountain Hamfest and there was a good participation. One thing that was very noticeable was an increase in the number of hams who are non-contesters. These folks have developed CW skills in the range of 8 to 20 wpm. The setting provided an opportunity to invite them to consider enrolling with the CWops CW Academy in order to improve their skill. They were excited to learn about that. There were other visitors who said they have a license by never learned code. What a great place to get acquainted with them and direct them to our CWops Website/CW Academy where they can enroll for training. Even better were the ones who said they would like to learn to use CW so they can expand their capabilities in doing SOTA, POTA and QRP interests.

I have a favor to ask you as a CWops member. Club meetings that you attend are a place to get the word out about our CW Academy and the free CW training we have available. The favor being requested is for you to announce that CW training is available and details can be found at www.cwops.org/cwacademy. Making the announcement during the general meeting should be repeated during the year. Maybe you can get the same type of comment inserted in your club newsletter. Introducing someone who has attended any of the courses is testimony as to its effectiveness and credibility. Hoping more of you will become a voice for CWops at your local club meetings. Thank you for all you do.

73

Mac, NN4K, President

From the [Editor](#)

2018 Election Results and CWops Governance

If you are reading this, you are most likely a CWops member. Do you know how your club is governed?

CWops was officially created on December 18, 2009 as a nonstock corporation in the state of Virginia in the USA. According to the articles of incorporation, "The purpose of the Club is to bring together Amateur Radio operators who enjoy communicating by Morse Code (CW); to support operating and social activities for members, other Amateurs and their families and friends; to encourage the use of CW in Amateur Radio communications; to promote goodwill among Amateurs throughout the world; and to foster the education of young people and others in matters related to Amateur Radio." [You can view a copy of the Articles of Incorporation here.](#)



The club is administered by a board consisting of a president, vice president, secretary, treasurer and three directors. The president, vice president and secretary are elected by the membership and serve for a term of two years. The board appoints the treasurer. The three directors are elected on a staggered basis for terms of three years. Insofar as practical, directors and officers are to be chosen from different continents as follows: one director from North America, one from Europe, and one from South America, Africa, Asia or Oceania. Officers shall be chosen from at least two continents. [See the club bylaws here.](#) The treasurer's report appears each year in the January edition of *Solid Copy*. [See page 4 here.](#)

A nominating committee is appointed each year to put forth a slate of officer and director candidates. This year's slate included:

President: Mac NN4K
Secretary: Jim N3JT
Director: Raoul ZS1C

The first two candidates were incumbents. Vidi ZS1EL was an incumbent director and, after many years of helping to lead the organization, decided not to stand for reelection. **Thanks, Vidi!**

An email was sent to the membership in early October by Don N1DG who led the nominating process, announcing this slate and inviting the membership to nominate additional candidates. No additional nominations were received so these candidates were declared to be elected. Other officers whose terms continue:

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Vice President: Peter Butler W1UU
Treasurer: Craig Thompson K9CT
Director: Stew Rolfe GW0ETF
Director: Nodir Tursoon-Zade EY8MM

Congratulations to all these hard-working volunteers!

Aside from the elected directors, a group of volunteers also serve in leadership roles to manage the following aspects of the club and submit columns for *Solid Copy* on a monthly basis or as appropriate:

Rich VE3KI manages the [weekly CWTs](#)
Jerry AC4BT manages the [CW Academy](#)
Trung W6TN is the [membership secretary](#)
Bruce N1LN manages the [annual CW Open](#)
Pete W1RM and Peter W1UU manage the [CWops member awards program](#)
Gary N5PHT manages the [QTX awards program](#)
Riki K7NJ manages the [Annual Award for Advancing the Art of CW](#)
Dan KB6NU is the [webmaster](#)
Tim K9WX is the [newsletter editor](#)

Additionally, Joe W5ASP writes a monthly column for *Solid Copy* (Operating Events) and Jerry AC4BT compiles a month News and Notes column, while Mort G2JL and Hank W6SX write mostly monthly columns as correspondents-at-large. (There is a danger when I compile a list like this as I almost always forget someone. If I forgot you, my apologies and please send me an email so I can correct things next month.)



Of course, the CWops members themselves write the monthly feature stories for *Solid Copy*. Send your story ideas to [me via email](#).

A list of officers and directors appears each month on the first page of *Solid Copy* along with links to the email addresses for each. Email addresses for the other volunteers appear on monthly stories.

If it's not obvious from the above, there are lots of volunteers from around the globe working to make CWops the best that it can be. Give them a big "TU" when you run into them on the air.

73,

Tim, K9WX, Editor



News and Notes

[Jerry Weisskohl AC4BT](#)

Bud AA3B / V26K: I will be active from Antigua between 11/19/18 and 11/26/18 using the call V26K.

I will participate in the CQ WW CW contest in the Single Operator All Band Low Power category. This will be primarily a CW operation.

Please QSL via LOTW, bureau (via AA3B) or direct to my home call. OQRS available via Club Log.

I hope to work many members! I will try to be QRV for the 1300Z and 1900z CWTs on 11/21/18.

Jim, N3JT: N3AM and N3JT are both heading to Florida again and will be operating their Washington, DC area stations remotely. Jim, N3JT, also has an R9 antenna in Florida and will use that as well as the remote station, sometimes at the same time!

Dick, WN7S: I just made my hotel reservations for Dayton... I usually stay at the Marriott in Jeffersonville but that was already filled up. I had to settle for the Hampton Inn on the same road. They have a great BBQ place next door.

Last year, at Dayton, I remortgaged my house and bought a Begali 60th Anniversary Key. I sure like it. It has a nice light touch. It doesn't help me send any better, It's too late for that; however, it is sure nice and smooth. By the way, I keep the soft velvet cloth on top of it while I am sending. It adds a nice and "velvety" soft touch while sending.

Chasing DX on 30 meters: wow, I was amazed to see all those 20 db signals using dipoles at only 200 watts. Hi Hi. I got my MA6B up at 22 feet. Not too much gain or directivity but does work a little better than my wire in the trees.

Chuck, NO5W: A New Version of Pile Up Practice Has Been Released

I've just released a new version of the Pile Up Practice application which includes a redesigned user interface and the addition of the Kansas City DX Club's 2018 Dayton Pileup Competition. If you've been to Dayton and discovered the KCDXC Hospitality Suite you know it's a very popular watering hole at the Crowne Plaza and a great place to meet and compete against many of the top CW contest operators just after the Contest Dinner and on into the night usually closing around midnight after a hundred or so operators have competed.

Not only is the suite a good place to meet and compete but you might also

pick up a nice door prize or leading scorer prize if you are one of the top three. If you have not had a chance to attend, then you can still test your skills against the attendees and see how you would have done against the leaders as well as the average attendee by using the Pile Up Practice application.

It is also a good way to practice for a future competition if a trip to Dayton is in your plans. Cur-

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rently, competitions going back as far as 1998 are available as well as the one held at WRTC 2014. Others will be added in the future.

To obtain the application just follow the instructions at my website: <http://www.no5w.com/PileUpNetPractice.php>

If you want to read more about the features and use of the application before doing the download there is a link on that page to a small document describing the application in detail. If you have questions, feel free to contact me either at the CQ/X support address given on the web site or directly via my QRZ address.

Frank, PA4N: As you might know, for the last 5 years I have been running an RBN band map web site showing CW Club member activity, at the address <http://pa4n.xs4all.nl>.

I would like to inform you that the web site has recently moved to a different location. Would you please be so kind to inform our fellow CWops club members of the new location of the web site: <http://rbn.telegraphy.de> ? The old location will be dismantled.

The web site is now being maintained by the same person who came up with the original idea for the RBN band map web site, Fabian, DJ1YFK. If you have any questions regarding the web site, including issues regarding membership list updates for the web site, please contact Fabian at fabian@fkurz.net.

I am glad that the web site has found a new home, and I hope many CW enthusiasts will continue to use the RBN band map web site.

Dave, W8OV: In order to increase participation in Field Day last June, the Plano (TX) Amateur Radio Klub decided to award a prize to the member with the most contacts during FD. I won, but I cheated -- I used CW ;-). The prize was a certificate the club had acquired for a flight on a 74-plus year old AT6-Texan at the Cavanaugh Flight Museum in Addison, TX <www.cavflight.org>. This particular model has quite a history and is still in use in many countries. I didn't work any aeronautical mobile but enjoyed the flight on 10/5.



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Armin, DK9PY: I had a newspaper article written about me from our local newspaper in Bad-Kreuznach/Germany. Here is the English translation:

Delta-Kilo-Nine-Papa-Yankee". With a calm voice Armin Sturm speaks his identification (call sign) into a small microphone. And he will be heard. First a radio operator from Spain, then Victor from Siberia, more than 4000km away from the shortwave antennas above Rüdesheim.

Up here on the Kesselberg one of the world's best amateur radio operators pursues his hobby.

Armin Sturm has just had a strenuous weekend: a 48-hour radio competition (contest). On Saturday morning at 0 O'clock Greenwich Median Time, i.e. 2 local time, he started. This means: to continuously exchange radio signals, to identify the right one in the noise and often up to seven stations call at the same time.

In one minute, the radio operator can work up to 5 connections - as far as New Zealand, the USA or Argentina. After 48 hours Armin Sturm sends his documentation online to the competition headquarters: I had 1155 radio connections. That's enough for at least second place in Germany.

However, Mr. Sturm will not know the final result for a few weeks.

Now Armin Sturm is sitting in front of his devices again. He presses the Morse key, with which he sends short and long signals into the world, which form letters. Radio technology has always been my hobby. I acquired an amateur radio license when I was 20, says the 62-year-old, who turned his hobby into his profession. He works as a communications engineer for a company that provides Europe-wide support for emergency services, fire brigades and the police: i.e. everything that is mission-critical communication.

Sturm lives in Waldalgesheim, Germany and bought the former military site in 1997. Stickers on the door to the crew building are reminiscent of the German Armed Forces. Kesselberg was once one of 34 stations in a secret nationwide communication network. The station in Rüdesheim was officially named Grundnetzschalt- und Vermittlungsstelle of the Bundeswehr 42.

The technology was housed in a bunker and in an above-ground crew building - which was no longer needed in the 1990s due to the end of the Cold War and the digitalization of radio technology.

By newspaper advertisement also in the AZ (the local newspaper), the federal government offered the carea on the Kesselberg to the highest bidder - and the amateur radio operator from Waldalgesheim took his chance. Since then, he has built his own antenna farm on the site so that he can pursue his hobby. But he can do anything with the underground bunker. And when he asked the district administration whether he could also live in the team building, he received a refusal. So Sturm still commutes from Waldalgesheim to

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Rüdesheim to pursue his hobby.

Meanwhile, Sturm has received a signal from Morocco. To make it clearer, he pushes a button. One of the large antennas outside rotates until the Morse code signs are clearly audible. A view into the radio directory (QRZ.com): Mohamed from Casablanca greets with a friendly photo. Sturm sends back his own signal.

Armin Sturm has set himself a big goal for the next few years, especially then, when his retirement leaves him even more time for the radio hobby: I want to get even higher in Morse speed. An outsider can hardly imagine what that means: At the moment I can recognize 450 characters per minute, that is seven to eight characters per. Characters - these are the letters of the alphabet, which are represented by short and long pulses. Sturm hears the letters out of the ether faster than most people can read, let alone write.

Rather casually he says: At the moment I'm in 17th place worldwide: I could still reach 10th place.

That's all I can do, the record is more than 600 characters per minute. The radio operator from the Kesselberg also wants to work a little on his equipment: Two antenna masts are still lying on the ground waiting to be erected.

Then, in addition to technical understanding, a great deal of craftsmanship is also required. Armin Sturm regrets a little that the amateur radio operators in Bad Kreuznach have little new blood: The young people prefer to play with their smartphones. And what we do is much more diverse and exciting. Says it - and dives into a radio conversation with Jamaica.

I5EFO, Emil: I had the pleasure of receiving the visit in my QTH of W5SJ Bill, and his splendid wife Kathy, after having participated in the [2018 TX5T DXpedition in the Austral Islands](#).

They had lunch with me, my wife and my oldest nephew. After spending a few hours in carefree and enjoyable company, Bill made some QSOs from my station. So Bill did QSO with N3JT Jim (the # 1) and K5PI Bob (also a member of the TX5T team), as well as with a dozen or so DXCC European countries. All this with the spirit of friendship of the CWops club.



W5SJ (left) and I5EFO (right) ending their meal with limoncello!

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Duncan G3WZD: Guest JOTA operation in Dubai ends in frustration

Back in the UAE for another business visit, I was very happy to be invited to be the guest CW operator at A60JOTA, staged by Emirates Amateur Radio Society with Dubai Scouts Association for the 61st JOTA/JOTI.

The rig was a TS480HX driving a two element SteppIR (enthusiastically assembled by the scouts) on the roof of the scout building. Imagine my dismay to discover a steady S9+10 noise across all bands 20 – 10! Not a single signal could be heard, and nothing was copied in reply to my 30 minutes of CQs. A great shame as I was spotted in Northern Europe and Ukraine on the RBN...

The noise was attributed to the close proximity to the metro system and sundry other electrical devices which could not be shut off.

Photos, Top: G3WZD with some Scouts; Center: JY5DG Abdul Ghani Right A65AB Hisham Abdul Salam; Bottom: The rig.



Larry, NN50: CWT First Timer...

What great fun!!!

This afternoon, at nearly the end of the 1900z session, I skipped up toward the top end of the 20m space (around 14.045ish) and started running. While I began at 36 wpm, I decided to throttle back to around 30.

With QSB, I could hear a station calling, kinda "scratching on my door," so I kept asking for fills. When I finally got him, I



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noticed that there was no fill info in N1MM for him, so I sat up closer to the keyboard and decided to work closely with this station.

Well, looky here.....our persistence resulted in a good QSO with Kevin. Now, I'll write him back and invite him to return—and to always go ahead and jump in when somebody is calling CWT.

This stuff makes you feel that it's all most worthwhile, doesn't it???

[I just noticed that he's a recent grad of the CW Academy. So, another boost to that amazing program and the terrific advisors!!]

From: <kevin@bowen.ws>

Subject: CWT

Date: October 31, 2018 at 3:02:23 PM CDT

To: nn5olarry@gmail.com

OMG Larry that was so cool but I was scared to death :)

Sorry about screwing up from being so nervous, I hope i did not mess up your entry.

You are my 1st CWT / contest EVER on CW..

My hand is still shaking.. You made my birthday sir !!!

73,

Kevin N0KVN

Lar, K7SV: All four members of our SEPT/OCT Level I CW Academy class have done very well. All have graduated.

I replaced my 160M Tee with 4 elevated quarter wave radials with an inverted L over a folded counter-poise. The jury is still out, but I'm thinking it's a keeper. It's been up about a month. I've worked ten or so Europeans and VP6D with it. Also made a little better than 200 Qs the Fall Stew Perry with a handful of west coast stations in the log.

I also rebuilt and moved my NE/SW 40M dipole. I had a problem with 40M RF from that antenna (which was right over the top of the house) getting into devices in the house (motion activated porch light and cordless vacuum cleaner charger) that rectified and re-radiated RF, especially on 40. It made it appear that my second harmonic from 40 to 20 was much worse than it really was. I extend the length a bit to get it to resonate at 7150 and moved it about 200 feet away from the house. I fed it with 1/2 wave of RG8X followed by 3/4 wave 1/2 inch CATV hard line. I did this to keep loss down and to make the dipole cover the whole band with reasonable SWR. This is based on the AI1H broad band dipole based on resonant transmission line section that was pop-

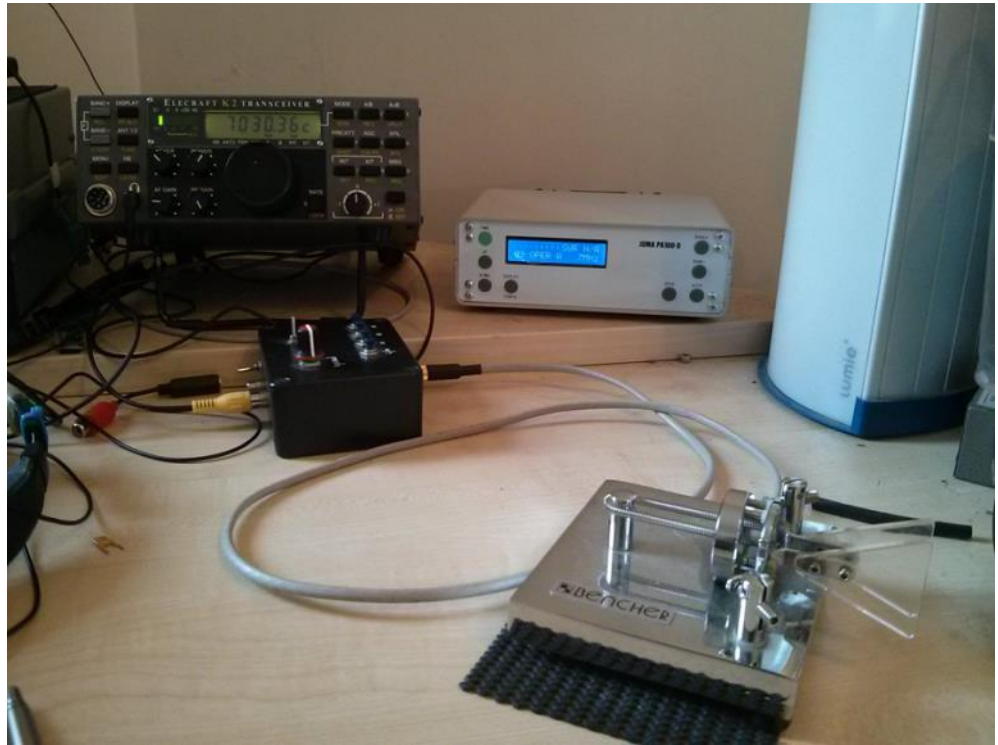
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ularized by Dave Leeson W6NL. See: http://www.arrl.org/files/file/QEX_Next_Issue/Nov-Dec2018/Leeson.pdf

The antenna is up 70 feet, the SWR between the top and bottom of the band is almost flat. My problem with crud from 40 to 20 disappeared completely. I've been using the same antenna design to cover 80 from 3500 to 3850 for about 20 years. The difference in signal strength between 40M dipoles oriented NE/SW and NW/SE is frequently quite startling! Both are at 70 feet.

Peter, GM0EUL: I think I may at last be a proper CW operator, I've joined the Elecraft fraternity! I sold my much loved IC 718 and bought a K2. It has most of the modules I wanted: internal ATU, noise blanker, SSB board and the circuit to key an external amplifier. I've added the KIO2 RS232 module to enable it to communicate with my loggers and digital mode software etc. I wanted at least 100 watts, so I built a Juma PA100-D amplifier kit to complement it. If you



haven't heard of [Juma it's a Finnish company](#) and makes some of the best amplifiers and transceivers available. All are component level kits making extensive use of tiny surface mounted components that all have to be individually soldered to the boards. I watched some YouTube videos and just jumped right in. Its fiddly and I discovered that expensive American solder flows beautifully and makes it easy. Cheap Chinese solder doesn't work well, and you really need the predictability and control when soldering an 80-pin surface mount microcontroller!

The Juma kit is all top-quality boards and components and it worked first time. Highly recommended, expensive but good value for money. The Elecraft KIO2 module is also a top-quality component level kit but all through-hole components and the Elecraft instruction manual is outstanding. That also worked first time. So, did I do the right thing? Well, the IC-718 is very good and for the price, and with the 500Hz filter and DSP fitted it's an excellent CW radio so the bar was fairly high. The K2/PA100-D combination is outstanding at any price with no caveats, so yes, definitely the right thing to do. There is a fair amount of excellent competition around for the price of a fully loaded 100-watt K2 and it partly depends on aspects of the hobby that you most enjoy. For me I'm a soldering iron ham so the K2 with its accessibility and modules as well as its

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performance as a top-level CW radio ticks all my boxes.

I was delighted to meet Phil G4NVR at the Gala-shiels Rally. It's a one-room local event but well attended and usually great fun. I've worked Phil many times and we were teammates in the CWO but have never met before. Below this article is a picture of us wearing our new CWops badges.

My latest level 1 CWA course finished at the weekend and we spent the final session listening and playing in the Ukrainian DX contest. One of the students was pretty enthusiastic, he tried some responding and went back afterwards to try some CW in a VHF contest. He wrote to me later saying:

Thanks again Peter for all your help with getting started in CW. Two months back I wouldn't have imagined that I'd be participating in a 2m CW contest but

I did today. I only made 4 contacts but those were all confirmed including signal reports and 6-character locators so it wasn't bad at all.



Amateur Radio by the Numbers

[Carl Davis W8WZ](#)

Unlike most ham radio operators, I am not employed in a high-tech profession. In fact, my only formal electronics training was the Novice License Class I took at age 14. In my professional life in the philanthropic and financial service sectors I spend most of my time moving money, so my formal education revolves around that skill-set. That means I spend a lot of time looking at numbers to see what stories they tell and what opportunities they present. I recently thought it would be interesting to look at some numbers as they relate to Amateur Radio as if it were a potential investment and see what stories those numbers might tell and what opportunities they may present.

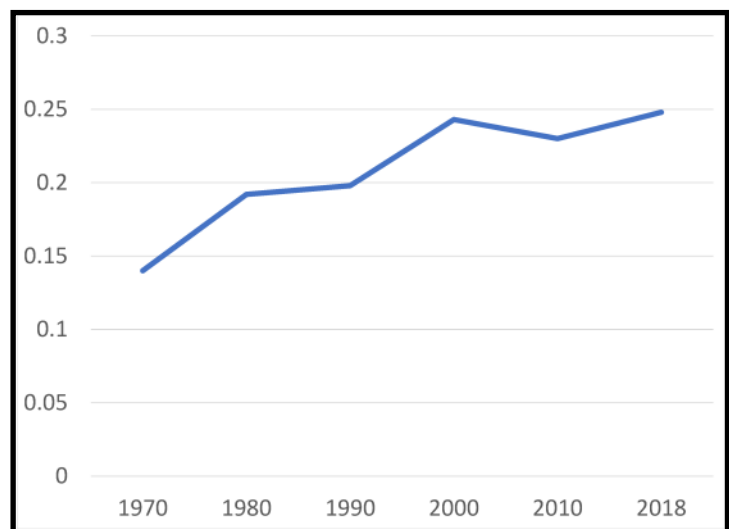
I live in the United States and, since I know where to find USA data on this subject, I will limit my analysis to the US out of necessity. I invite CWops members in other countries to undertake similar analysis with their data and share any observations and conclusions.



There are more licensed Amateur Radio Operators in the United States now than at any other time in history! Wikipedia reports that there are currently 801,424 hams in the United States. That means 0.248% of the national population are hams. It is good to look at the total number of hams, but it is even better to consider what percentage of the population are hams over a period of years. Looking at that trend is important because it will show us if the number of hams is simply growing because our population is growing or if a higher percentage of the population is interested in our hobby than before. So to answer that question let us look at the following data for the past 48 years which can be found at www.clearskyinstitute.com on arrl.org and curtesy of the US Census.

This is very good news for Amateur Radio. Not only are our absolute numbers rising but market share is also increasing. In 1970

Year	Hams	Population	%
1970	285,000	203 Million	0.14
1980	433,000	225 Million	0.192
1990	494,000	249 Million	0.198
2000	677,000	279 Million	0.243
2010	696,041	309 Million	0.23
2018	801,424	327 Million	0.248



Percent of USA population who are hams

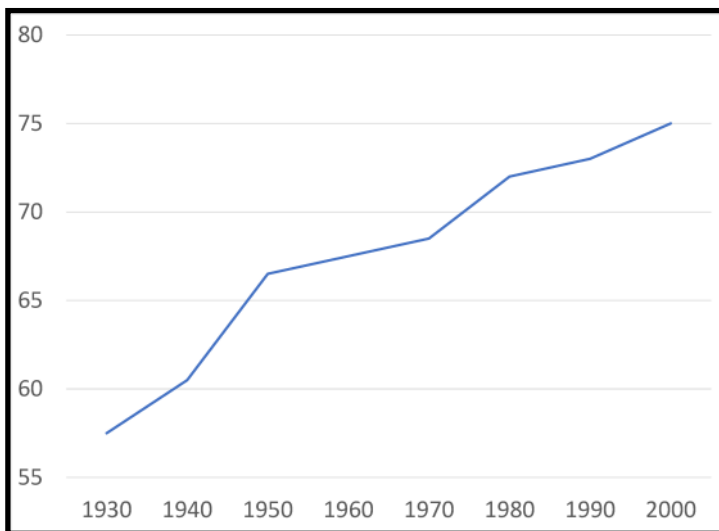
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only 0.14% of Americans were hams. Today 0.248% of Americans are hams. That is an increase of 77.14%.

The chart also shows that many people became hams in the 1970s and in the 1990s. That makes sense because in the 1970s many people entered the ham radio hobby after being introduced to radio through the CB craze of that era and in the 1990s many people entered ham radio when the Morse Code requirements were relaxed. In addition to that, our hobby has continued to grow since then. I think the lower cost of ham radio gear available today is helping to fuel that growth. Doubtless there are many factors coming together to result in the growth of our hobby from 285,000 hams in 1970 to 801,424 hams today. The 48-year history shows a very healthy rate of growth that any company would be happy to have.

I was unable to find good data about the age that hams are when they are first licensed. However, I observe anecdotally that the average age of new hams today is higher than it used to be. When I was licensed as a teenager, many other hams were my age. Today it seems rare to find teenagers in our hobby and most of the people in our club's licensing classes are adults. Of course, without good data to analyze, that is just one person's observation and may be inaccurate. That said, I think it is safe to say that the average age of a ham is higher now than it used to be. That observation can lead to doom and gloom thinking. However, it is also important to realize that the average life expectancy has also increased drastically over the years. Consider that when The Social Security Act was signed by President Roosevelt on 14 August 1935 the life expectancy for men in the United States was 59.3 years. President Roosevelt himself died at age 63 and was not considered to have died young. Today the life expectancy for a male in the United States is 77 years. That is a 29.85% increase. Therefore, an older ham today may actually have more years of hamming in front of him than a younger ham did a generation ago! Rising life expectancy can negate the otherwise negative impact of an aging ham radio population. This is especially true since we are gaining many new hams each year. The hobby is not in danger of dying out.



Life Expectancy in the United States

Also, as new hams enter our hobby as adults it is reasonable to suppose that they will have more money to spend on radios than new teenage hams did in years past and since ham radio gear is less expensive now that means that financial restraints on participation in our hobby by new hams can be reasonably supposed to be at an all-time low. Let us consider the cost of new entry level HF radios. In 1970 a Heathkit HW101 kit cost \$399.00. Adjusted for inflation that cost is equivalent to \$1,993.38 in 2018 dollars. Today a brand new fully built Yaesu FT 450 can be had for \$739.00. That illustrates that ham radio gear is 63% cheaper today and the quality is higher

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today when you compare the specs on the HW101 to those of the FT450.

All these trends combine to make me very bullish about Amateur Radio. There is one trend that is concerning however. That is the urbanization of our society. In 2010 (our most recent census) 80.7% of Americans lived in an urban setting. In 1970 that number was only 73.6%. I suspect the 2020 census will show that number even higher.

This is concerning because it is harder to operate a ham radio in an urban setting than it is in a rural or even suburban one. Lack of antenna space and higher RF noise floors make urban operating hard. To see how ham radio will likely look in an era of increased urbanization we would do well to look at how Amateur Radio already looks in the highly urbanized countries of Europe and Asia. In those markets much, if not most, ham radio operation is conducted at club stations rather than at home stations. I think we will see that trend develop in our country as well. I also think that an increased number of American hams will take advantage of the miniaturization of our transceivers and power supplies and chiefly operate their stations as portable stations while on picnics or campouts instead of from home.

Therefore, if Ham Radio was a sector I could invest in, I would do so. If I was looking to pick specific winners within that sector I would invest in Ham Radio clubs in urban areas (where the population growth is strongest) that either have or are working on plans for a club station to allow their members who live in apartments, condos or homes controlled by HOAs to operate easily and in clubs that are investing in remote stations in areas with low noise floors that their members can access remotely from their urban homes. I would also invest in companies that create gear used for portable operation more than I would in companies that create gear for giant home stations because I think more ham radio stations in the future will be portable and fewer will be giant home stations.

I also think it is worthy to note that as the number of hams facing RF noise floor issues increases that will create a stronger market for a technological solution to RF noise. Historically, technology is developed to fix problems when there is a market strong enough to pay for the technological solution. When the number of hams (and other RF users) who are willing to pay for a technological solution to our urban RF noise floor issues grows strong enough, I have faith that Digital Signal Processing will advance to the point of offering solutions to us that do not currently exist. While I cannot imagine how antennas could be improved to work better in urban spaces, I have faith that technological advancements in the world of antenna design may also help solve these issues once there is a market willing to pay for that solution as well. Consider the rising popularity of magnetic loop antennas made practical by lower cost vacuum variable capacitors entering the market place and the fact that the newest offering from SteppIR is the "Urban Beam". It is worth remembering that our thinking around antennas has not changed drastically since the end of WW2. What other technology has remained so stagnant? I think we will see amazing technological innovation in that area once demand rises more. If I was looking to make riskier invest-



Heathkit HW-101. Image from swling.com

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ments in the Amateur Radio sector I would invest in companies doing research around advanced DSP and antenna design.

What does this mean for [RARS, my local club](#)? According to www.wakeupwakecounty.org "Wake County recently hit a new milestone... **1 million residents!** Wake County is growing by an average of 64 people each day (including births, deaths, and people moving), and has added 100,000 people in the last four years."

If we consider that 0.248% of the US population are hams, then it is reasonable to think that of those new 100,000 residents about 248 of them are already hams. Anecdotally, as I looked around the RARS board room table last week I realized that the overwhelming majority of us on the RARS board were hams before we moved to Raleigh.

Additionally, there are 3,147 licensed hams in Wake County. RARS membership usually starts the year around 300 and ends the year around 400. We have been holding in that range for several years. Therefore, about 10% of Wake County hams are members of RARS (Of course this is a general over simplification, obviously many of our members are not residents of Wake County and we can find potential members in surrounding counties also. This simply shows that we are nowhere near reaching market cap in terms of membership!)



Currently, most of our new members come to us after taking their exam with our Volunteer Examiner Team and/or taking their licensing class from our Spring and Fall Technician Classes. Or, they come to us because they were already a ham and found our webpage after they moved to the area. If we were interested in growing our membership significantly, the fact that 90% of existing Wake County hams are not yet members, and that we can expect to have many new hams moving into our county each year would indicate that a potential growth market for RARS membership could be realized via intentional outreach to those people in addition to our work to license and engage new hams as even more of the population become interested in our hobby each year.

So, the next time you hear all the "doom and gloom" talk about the best days of ham radio being behind us (work 75 phone, much?), take time to think about the stories that the numbers are telling us. Look at Ham Radio from the perspective of an investor and be "long" on our hobby. There is good reason to be!

CWops an Activator for Enigma Reloaded – 2018

[Bill Gilliland W0TG](#)

Enigma machines, invented by German engineer Arthur Scherbius in 1918, were used by government and commercial entities beginning in the early 1920's to protect commercial, diplomatic and military communication. The most well-known use of the devices was by the German military during World War II. Polish mathematicians were the first to break the Enigma codes and their efforts allowed the British at Bletchley Park to develop systems that allowed them to regularly read German coded transmissions throughout World War II. You can find detailed information about the machines and their use at The Enigma Museum's Website <http://enigmamuseum.com>.

The Enigma Reloaded event started in 2014, originating from an idea developed by the Marine Museum of La Spezia, Italy, and the Cultural Association "Rover Joe"- Fidenza (Parma Italy), and is supported by A.R.I. Fidenza Radio Club and the Italian Amateur Radio League. The goal of the event is to promote radio amateur activity all over the world and celebrate the history of the Enigma cipher machine and its crucial role in the final outcome of World War II. Participants in the event compete by contacting Activating Stations, each associated with an amateur radio club and paired with a real Enigma machine. For more information about the event and its sponsors, please go to http://enigma-reloaded.it/index_eng.html.

CWops participated for the first time as an Activator Club during the 2018 Enigma Reloaded event. CWops member Dr. Tom Perera, W1TP, graciously allowed our operation to be paired with real Enigma machines at the Enigma Museum, as required by event rules. Nineteen CWops members operated timeslots as K3CWO during the event which ran from September 28 through October 5, 2018. During that time, K3CWO completed 1498 QSOs with participating stations in 40 states and 61 countries, almost all on CW.



Tom W1TP (Photograph courtesy of The Enigma Museum)

CWops received the following letter of appreciation from A.R.I. Fidenza, the sponsoring organization:

Hi to everybody !

First of all I wish to thank you All for the GREAT, GREAT, GREAT result you achieved working so

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hard and intensively for the ENIGMA RELOADED award.

It's really a pleasure and an honor for us to see how much effort, enthusiasm, HAM Spirit and cooperation you were able to put in place within your excellent operator team, mainly making CW traffic: again, THANK YOU All from A.R.I. Fidenza !

I confirm that I have received your log in the correct format (ADIF) and it has already been uploaded into the hamlog.ru.Data Base.

I encourage you to continue in the activity on the air with our award "Milestones of Science in the history of radio", please see:

<http://www.arifidenza.it/LaSezione/diplomapietremiliari2018/Diploma PIETRE MILIARI eng.asp>

Thank you again and best 73's.

Paolo IK4PKK



CWops received a certificate recognizing its participation and each CWops member who participated in the event will also receive a certificate commemorating their participation. Thank you to the CWops members who worked through often poor conditions and difficult schedules to make the event a resounding success for CWops! And a special thank you to Frank, W3LPL, whose idea led us to participate, and whose guidance and continual spots of K3CWO on dxsummit.fi were directly responsible for much of our success!

Scottsdale, Arizona, USA
My dad, W9NU/W9IPT CW op since 1932!

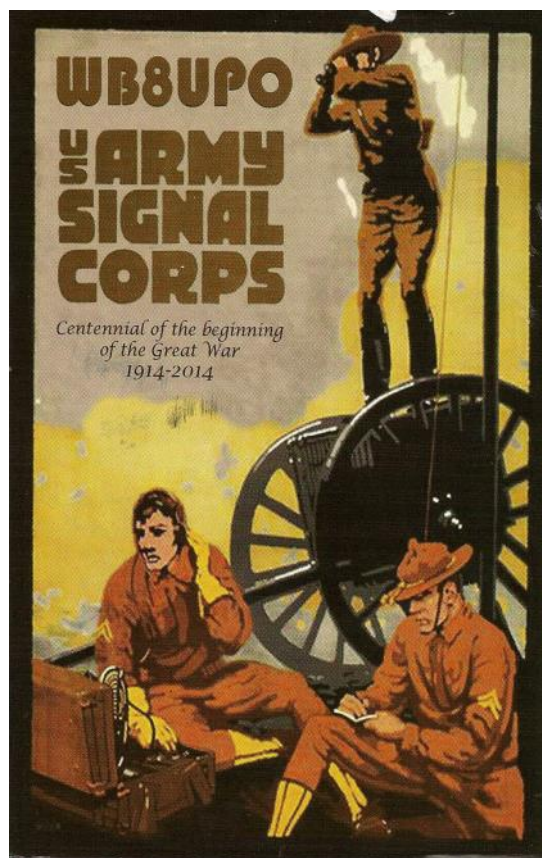
W7KPL

100 watts and dipole up 20 feet

CONFIRMING QSO WITH	DAY	DATE MONTH	YEAR	UTC	MHZ	RST	MODE 2-WAY	QSL
K3CWO	3	10	2018	1454	14.0	599	CW	QSL ESE TNX

Hello. Thanks contact w/ K3CWO!
I'm All for encouraging
CW to remain strong
I have been pounding brass since 1960 love it.

Jerry Page 73
5406 N. 78th Place
Scottsdale, Arizona
85250-6817 USA



The World Cup Marathon

[Stew Rolf GW0ETF](#)

Earlier in the summer this year I and others had the opportunity to imagine we were running pile-ups from some top-ten Most Wanted exotic location except that we never had to set foot outside the comfort of our own home shacks. This was courtesy of the FIFA World Cup Marathon organised by the Union of Radio Amateurs of Russia (RRC) which lasted the whole of June and ended on the day of the World Cup final on July 15th. Nobody was quite sure how popular this extended event would be, but it quickly developed into quite a QSO-fest which helped fill the bands every day for 6 weeks.

The event centred around a large number of so-called host stations using distinctive calls which would be 'collected' by hams all over the world for special RRC awards. Participation of host stations wasn't restricted only to countries represented at the World Cup finals in Russia. Countries with a team in the finals were typically allocated callsigns ending in '18FWC' while others were normally of the form '**18FIFA'. These special calls were allocated to individuals and clubs in those countries to use as they wish. Russia had a different system with a series of one-off calls of the form R*18** with the suffix related to the cities hosting matches; these were only valid for the duration of the football competition which began on 14th June. A full list of calls taking part can be found [here](#) along with some stats like numbers of contacts made by each; this gives some indication of the activity levels generated by the event.



The RSGB had organised a handful of special GB and MB calls in the format of '**18FWC' (for England who *had* qualified) and '**18FIFA' (for Wales, Scotland etc who hadn't) but these attracted a mixed response due largely to lack of publicity. So, the Chair of the HF Contest Committee Nick G4FAL asked the Russians if we could use the RSGB Contest Club call G6XX and regional variants as qualifying calls for the event. Nick does like his football but he also seems blessed with a sixth sense that suggested the event would be so popular that it would be a great opportunity for UK contesters, whether they like football or not, to experience serious pile-ups - and many for the first time. This hunch was certainly borne out over the next 6 weeks.

Nick put a lot of time and effort into setting up a web-based booking system for each of the G*6XX calls as well as looking after sending the ADIF files to the Russians who conveniently looked after all the bureaucracy like QSLing and LOTW etc. I ended up taking 8 slots varying from just a couple of hours to a whole day where I would operate on and off amongst my normal household chores like dog walking and grass cutting. Oh, and did I forget to mention all my operating was CW? Except for one short slot where I was taking advantage of a marginal 10m opening each spell followed a similar pattern - find a frequency which ideally is clear for 4 or 5 kHz up on the panadapter, check and then call CQ. Maybe one CQ or perhaps two until the Reverse Beacon Network had picked me up and then a couple of quick QSOs before the real pile-

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up arrived. These would last anything from 45 minutes to 2 hours before subsiding into more of a relaxed run and I always made sure I worked them out before taking a break; I didn't want to disappoint anyone and it was also such brilliant fun! During daytime 20 and 30 were my normal bands with 40 and 80 taking over into the evening. I had my busiest spells on these lower bands on two or three evenings with quite eye-watering European pile-ups which pushed me to my limit. I kept telling myself to hang on in there as it's extremely rare I'm this popular! I collected a total of just under 3,500 contacts which isn't earth shattering but OK considering the operation was in the form of many short bursts many of which involved struggling through deep pile-ups; it was totally different from a contest situation and filled me with admiration for the slick operators I hear doing this for hours on major DXpeditions. The count for all the GW6XX World Cup operations was 8,580 and CW outnumbered other modes by 2:1. The grand total for all the G*6XX stations came to just under 55k Qs with a similar mode ratio for all except G6XX which naturally had most overall activity but with CW still in the majority at about 1.3:1. Long live CW!

I have a modest station here, single element wire dipoles or verticals on poles or hanging in trees – see the photo and spot them if you can! Because of all the other World Cup stations on the



bands I always tried to stay simplex. But you need to be LOUD for that and when the tell-tale signs like hesitation from a station I'd responded to told me I wasn't being heard well through the constant callers, it was time to check there was clear blue water on the panadapter above or below and go split. This happened frequently and always made life much easier. But life isn't always kind and sometimes there was just no room from the start or someone had meanwhile jumped in so there was no choice but to rough it out on the same frequency. This was often slow going

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with lots of responding to partial calls and inevitable repeats. When it became clear there were problems hearing my second rate signal through the bedlam I would adopt the habit of sending the call again immediately after the exchange (AB1CD 5NN AB1CD) which usually improved the response rate and also worked nicely for those who sent their call twice and ended up doubling – not all the callers were testers or seasoned DXers!

What I found most surprising was the way the interest and activity continued throughout the 6 weeks. I would have expected the pile-ups to abate after the first few days but they just kept coming so I kept checking my diary and booking extra slots so I could continue enjoying the show. It also finished with quite a bang too – Nick G4FAL had been allocated the special call GB18FWC for the final weekend July 13-15th. This of course was the weekend of IARU and WRTC so it was decided that the 40 CW GR2HQ team operating from Nick's, and which included myself, would use the opportunity for some serious warm up and station testing on the Friday. The call had only been used briefly at the RSGB National Radio Centre with a handful of contacts, so we knew we'd be pretty much fresh meat as soon as we appeared on the bands and cause a final flurry from desperadoes wanting to grab a last-minute qualifying callsign. Between 4 of us in amongst setting up GR2HQ and generally chilling out preparing for the main event we clocked over 2,500 contacts. A rousing finale to an enjoyable 6 weeks.

Off Frequency

Hank Garretson W6SX

To zerobeat or not to zerobeat, that is the question.

On the receiving end, if more than one station calls, I often need something to pick out a call. Overwhelming signal strength is probably number one, but we're not all signal blessed. Call recognition is big. Timing is big. And then there is zerobeat. If everyone is on the same frequency, it is often impossible to get a call. Someone calling off frequency a bit—even if not the loudest, even with an unrecognized call, even ill-timed—will get my attention and the contact.

On the S&P end, you want to make contacts as quickly as possible. My experience is that a slight offset will often make the QSO, even when I'm not very loud.

W6SX First Corollary: Share the fun. Here are my tips.

When Running, listen and reward guys who call a bit off frequency. Insisting that guys call you on frequency is counterproductive. Program an S&P macro to send your call slightly offset. I use -50 Hz. My N1MM macro for the K3 is: F9 XIT W6SX,{CAT1ASC XT1;RO-0050;}W6SX. Use experience and situation awareness to decide whether to call offset or not. You'll quickly develop a feel.

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Some Extra Bonus Tips: I use AutoHotkey to map F4 to the CapsLock key. It's a lot easier to hit CapsLock than to reach for F4. And, I use AutoHotkey to map my S&P offset key to LeftShift. To call a station, I use either CapsLock (zerobeat) or LeftShift (offset) as the situation dictates.

If you use the offset macro, at least with the K3, the offset will stay in effect when you tune away after the contact. My S&P F4 macro includes {CAT1ASC XT0;} which turns XIT off. When I call the next station, I can hit CapsLock—zerobeat—or LeftShift—offset.

W6SX Prime Directive: The first rule of contesting is to have fun.

CW Exuberantly!

Autronics Key Refurbish

[Jim Ciurczak K2QB](#)

I had been looking for an Autronics Single Lever keyer for some time after reading several reviews on these old classics. I finally came across one on an online auction site and managed to win it at a reasonable price.

After receiving the keyer I decided to do a refurb job on it. I decided against restoring it to its original color and wanted to jazz it up a little and have it compliment my station. After disassembling it I soaked all the chrome pieces in vinegar overnight to restore their shine and luster after which I polished them with some good metal polish. I then had the base glass beaded to remove all the paint. One unfortunate result of that was the glass beading also caused a lot of the old casting to be removed creating a few holes and crevices that needed to be repaired.

After spending several nights with some body filler and fine grit sandpaper I managed to fill in all the imperfections and applied a coat of primer. Once that dried, I applied two coats of paint that provided a nice finish. The original finger pieces were replaced with new red ones that I was able to order on line.

Overall, I'm very pleased with the way it turned out and I find myself using it more and more over my Vibroplex Vibrokeyer.



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CWOpS at the RSGB Convention 2018

[Ray Spreadbury G3XLG](#)

October 12-14 was RSGB Convention time in the UK, held at a Conference Centre near Milton Keynes, Buckinghamshire. About 500 or so attended.

The Convention tries to cover a broad range of HF & VHF activities & interests, using 5 lecture streams each day covering such things as DXpeditions, TX/RX/Linear switching times, Magnetic loops, Sporadic E, FT8 performance, Microwave engineering, IOTA, Propagation & a new version of G4FON's Koch trainer for CW. The lectures are all videoed and will eventually be available on the RSGB website.

Several UK members of CWOpS attended & we were very pleased to be joined by Don N1DG & Tim K3LR plus Sandy DL1QQ. Don had brought a CW OpS banner with him & some pin badges for the 10 members of Team UK who recently entered the CWOpS Open. We were pleased to take a group photo of the OpS at the Convention when the Sun was shining between lectures.

Don N1DG gave a fascinating presentation on the very successful recent Baker Island Expedition KH1/KH7Z, where he had been the joint Team Leader & Tim K3LR gave a presentation on the fabulous K3LR Contest Station with his jaw dropping antennas and shack, plus a few well-deserved plugs for DX Engineering products naturally!

A great weekend was had by all & we hope more international members of CWOpS are able to come in future years.

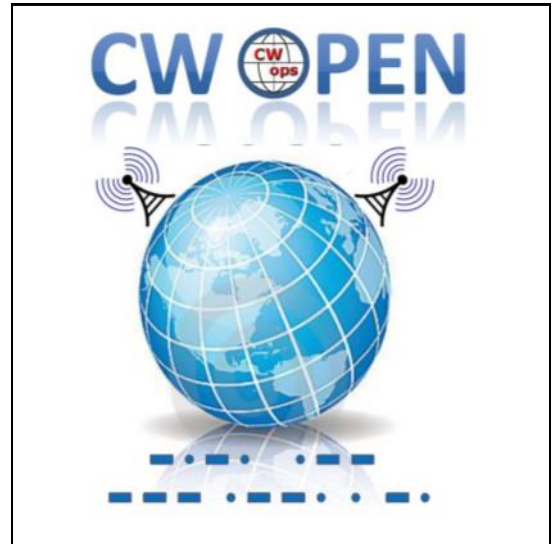


Left to Right: Roger G3LDI, Ray G3XLG, Don N1DG, Rob G0MGM, Jim G3YLA, Sandy DL1QQ, Tim K3LR, Mike G4DYC.

The 2018 CW Open

[Bruce Meier – N1LN](#)

I hope every participant had as much fun with this year's CW Open as I did. Yes, we are at the bottom of a sunspot cycle which brings with it the expected propagation issues, but the results did not reflect that at all. Actually, all metrics: QSOs, mults and point totals were well above last year. Even log submissions were up by 34%. One possible explanation would be to attribute the gains to an overall increase in club membership of 30% from the CW Open 2017 to the CW Open 2018. The membership totals are based on the Call History files created and released by Claude, VE2FK. Thanks Claude!! Can we keep these increases going for club membership and the 2019 CW Open? Let's give it a try.



The CW Open is always held on the first weekend of September. This year the CW Open Session 1 started on September 1 at 0000Z. Session 2 started at 1200Z and Session 3 started at 2000Z. This flexible session schedule and format allows participants to operate in all sessions or any combination. To be considered for a trophy or plaque a minimum QSO total of 100 must be attained in the session you hope to qualify in. The winners of the trophies are selected by ITU region based on session high scores and combined scores. The plaques are also ITU region based and awarded by session for high scores in each power level; High, Low, QRP. The specific winners of the trophies and plaques can be found below for each session.

Yes, propagation was down but as already stated, participation was up. This year there were 5 submissions that exceeded 100,000 points. Last year there were 3 submissions greater than 100,000 points. As you will soon read in the Session comments, each session enjoyed an increase in QSOs, Multipliers and overall points scored. For a potentially down year the CW Open was quite successful.

We would like to once again recognize and thank ICOM America for providing the beautiful trophies and plaques to the CW Open winners. The CW Operators Club really appreciates ICOM's continuing support of our premier operating event. Please be sure [to visit their web site](#).



So, let's take a look at the 2018 results and begin planning and strategizing for the upcoming 2019 CW Open starting on September 7, 2018 at 0000Z.

Session 1 – 0000Z to 0400Z

Session 1 results are based on 228 logs received, up about 39% over last year. Once again, all three ITU regions submitted logs. The QSO totals increased by 40%. The Multiplier totals increased by 53%. Finally, the point total increased by 53%. What a way to start the 2018 CW Open!

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CALL	NAME	QSOs	MULTs	SCORE	POWER	CALL	NAME	QSOs	MULTs	SCORE	POWER
AA3B	BUD	494	274	135356	HIGH	K9JWI	CLYDE	126	95	11970	HIGH
N5ZO	MARK	396	250	99000	HIGH	G4DRS	JOHN	103	97	9991	HIGH
K3WW	CHAS	396	246	97416	HIGH	N3RC	ROGER	114	86	9804	HIGH
N4AF	HOWIE	403	238	95914	HIGH	K3PP	GLENN	109	89	9701	HIGH
K5TU	KIM	380	247	93860	HIGH	NN4K	MAC	107	85	9095	HIGH
N5RZ	GATOR	356	227	80812	HIGH	N5NA	ALAN	102	86	8772	HIGH
N3RD	DAVE	374	214	80036	HIGH	WA6URY	DAN	104	78	8112	HIGH
K3WJV	BILL	347	227	78769	HIGH	K4GM	GEO	100	78	7800	HIGH
K5WA	BOB	353	223	78719	HIGH	VE3NE	LALI	91	84	7644	HIGH
N1LN	BRUCE	337	230	77510	HIGH	W1EQ	BOB	94	81	7614	HIGH
AD5A	MIKE	347	222	77034	HIGH	W5JK	STEVE	98	77	7546	HIGH
N3RS	SIG	342	222	75924	HIGH	LY8O	REMI	94	80	7520	HIGH
K6RB	ROB	343	218	74774	HIGH	K8RO	DALE	89	82	7298	HIGH
KU8E	JEFF	330	221	72930	HIGH	AA7V	STEVE	96	75	7200	HIGH
K5KG	GEO	324	222	71928	HIGH	KM4HI	JIM	98	73	7154	HIGH
K4BAI	JOHN	326	220	71720	HIGH	K7UT	DARRYL	89	73	6497	HIGH
VE3DZ	YURI	334	212	70808	HIGH	W7EE	GARY	93	68	6324	HIGH
W2OR	DJ	306	217	66402	HIGH	G4NVR	PHIL	89	70	6230	HIGH
K1ZZ	DAVE	320	201	64320	HIGH	K1RV	PI	80	74	5920	HIGH
W5TM	ED	298	194	57812	HIGH	G3XLG	RAY	80	72	5760	HIGH
K2TW	TOM	272	211	57392	HIGH	IT9MUO	ALF	72	65	4680	HIGH
W8FN	RANDY	281	202	56762	HIGH	VE3TW	STAN	69	64	4416	HIGH
W2GD	JOHN	300	186	55800	HIGH	VE1OP	SCOTT	66	63	4158	HIGH
K1IMI	BERT	267	203	54201	HIGH	G4HZV	BOB	65	58	3770	HIGH
N3AD	ALAN	291	183	53253	HIGH	K1ESE	JOHN	60	60	3600	HIGH
N8BJQ	STEVE	299	178	53222	HIGH	NA8V	GREG	59	54	3186	HIGH
K0SN	TOM	289	182	52598	HIGH	LZ1HW	SPAS	58	54	3132	HIGH
AB0S	TIM	272	193	52496	HIGH	N6XI	RICK	53	44	2332	HIGH
K3MD	JOHN	272	185	50320	HIGH	AD0AB	JIM	32	32	1024	HIGH
K9CT	CRAIG	248	192	47616	HIGH	OK1VK	PAVEL	33	30	990	HIGH
W3FV	BARRY	274	173	47402	HIGH	K3TN	JOHN	31	31	961	HIGH
N4KS	KEN	238	196	46648	HIGH	DL6KVA	AXEL	31	28	868	HIGH
KC4D	BILL	264	176	46464	HIGH	G3PXT	GORDON	8	7	56	HIGH
K5AX	TOM	244	188	45972	HIGH	VK7CW	STEVE	5	5	25	HIGH
K3CWO	VAIL	250	176	44000	HIGH	UA4PAQ	001RUS	1	1	1	HIGH
KC9EE	GARY	236	185	43660	HIGH	N4ZZ	DON	350	228	79800	LOW
K4OAQ	FRITZ	235	184	43240	HIGH	K7SV	LAR	326	220	71720	LOW
N3QE	TIM	237	182	43134	HIGH	WJ9B	WILL	284	191	54244	LOW
N4IQ	BILL	234	181	42354	HIGH	NN5O	LARRY	263	192	50496	LOW
AE6Y	ANDY	228	185	42180	HIGH	W0UO	JIM	267	187	49929	LOW
WF3C	CHRIS	231	182	42042	HIGH	K0AD	AL	258	179	46182	LOW
K1EBY	FRANK	238	176	41888	HIGH	KG5U	DALE	259	176	45584	LOW
WB0SND	MIKE	223	181	40363	HIGH	N4BP	BOB	230	196	45080	LOW
KE2CWO	MIKE	212	178	37736	HIGH	W1NN	HAL	250	180	45000	LOW
K4AFE	JOHN	225	165	37125	HIGH	W7ZRC	ROD	245	176	43120	LOW
K0NM	NIZ	223	162	36126	HIGH	W1UJ	JAY	229	177	40533	LOW
N2NT	ANDY	212	167	35404	HIGH	K7QA	TOM	237	157	37209	LOW
K4WW	BO	205	164	33620	HIGH	KE2D	BOB	214	156	33384	LOW
K2CYE	MIKE	213	154	32802	HIGH	VE3KI	RICH	212	152	32224	LOW
KM0O	TONY	197	163	32111	HIGH	N5TOO	VAN	190	165	31350	LOW
N4FP	WAYNE	209	153	31977	HIGH	NW0M	MITCH	199	156	31044	LOW
W6SX	HANK	218	143	31174	HIGH	W3KB	KEITH	222	139	30858	LOW
VE3MM	RICK	203	151	30653	HIGH	K1VUT	DAVE	207	149	30843	LOW
K6AR	JIM	194	156	30264	HIGH	KN8CWO	JIM	190	149	28310	LOW
K2RD	IRA	200	151	30200	HIGH	N4IJ	DOUG	172	145	24940	LOW
N3JT	JIM	190	146	27740	HIGH	W8CAR	DAN	174	134	23316	LOW
N2NC	JOHN	199	138	27462	HIGH	N1DC	RICK	175	130	22750	LOW
K8JQ	STEVE	184	146	26864	HIGH	K1DJ	RICH	156	126	19656	LOW
N3LBJ	JIM	177	150	26550	HIGH	AB1J	KEN	158	118	18644	LOW
WA4JUK	JOE	188	136	25568	HIGH	N5JR	JOEL	147	126	18522	LOW
AD8J	JOHN	174	146	25404	HIGH	N8LR	GARY	155	119	18445	LOW
K0RF	CHUCK	168	132	22176	HIGH	K1DW	DALLAS	151	120	18120	LOW
NW3Y	CHICK	162	125	20250	HIGH	N2AN	JEFF	144	109	15696	LOW
G2CWO	ROGER	143	121	17303	HIGH	KB3AAY	RON	145	108	15660	LOW
K2SX	DENNIS	145	115	16675	HIGH	N4OX	JAY	132	117	15444	LOW
K6DAJ	DAVE	143	105	15015	HIGH	K8AJS	JOHN	140	101	14140	LOW
KE0EK	DAVID	127	117	14859	HIGH	W2NRA	ART	129	107	13803	LOW
WN7S	DICK	132	111	14652	HIGH	NJ5N	CHRIS	132	103	13596	LOW

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CALL	NAME	QSOs	MULTs	SCORE	POWER	CALL	NAME	QSOs	MULTs	SCORE	POWER
W3WHK	SAUL	116	116	13456	LOW	G3YLA	JIM	47	39	1833	LOW
K2QB	JIM	122	108	13176	LOW	W1KM	GREG	40	37	1480	LOW
K5XU	MIKE	127	101	12827	LOW	AJ1DM	JOHN	35	35	1225	LOW
KG3V	TOM	116	105	12180	LOW	G4BSW	NIGEL	34	34	1156	LOW
KM4FO	DWIGHT	124	94	11656	LOW	K0TC	RON	34	33	1122	LOW
K3SV	BILL	123	89	10947	LOW	W9ILY	JOHN	33	33	1089	LOW
N5XE	CARL	117	93	10881	LOW	VA3RKM	BOB	33	31	1023	LOW
KA5M	MARSH	122	87	10614	LOW	H18A	RAFA	32	31	992	LOW
K2ZR	DICK	114	92	10488	LOW	K3HW	BILL	31	31	961	LOW
KT5V	DAVID	110	93	10230	LOW	AB7MP	MARK	27	26	702	LOW
KJ9C	MEL	106	92	9752	LOW	UR5MM	RUDY	26	26	676	LOW
K2PI	HARV	105	91	9555	LOW	G4ILW	JAMES	26	25	650	LOW
VE3MA	AL	106	90	9540	LOW	K3SEN	DALE	25	25	625	LOW
K8RG	BOB	107	88	9416	LOW	WA0LJM	DAVE	25	24	600	LOW
WB9HFK	MARK	104	85	8840	LOW	SM5IMO	DAN	27	22	594	LOW
N2UU	BOB	98	90	8820	LOW	KW1K	JOE	25	22	550	LOW
WN4AFP	DAVE	93	89	8277	LOW	N0EO	NEO	23	23	529	LOW
KT4XN	TOM	92	88	8096	LOW	LZ7DX	MARK	22	22	484	LOW
KT5CWO	BILL	101	80	8080	LOW	VE2NCG	NICK	21	21	441	LOW
KP3W	JOSE	98	82	8036	LOW	AH6KO	STAN	19	19	361	LOW
VE2IR	DON	97	81	7857	LOW	KF3G	SAM	19	19	361	LOW
W8OV	DAVE	94	77	7238	LOW	K5IX	DAVE	20	18	360	LOW
N7WY	BOB	88	79	6952	LOW	N8TCP	ROGER	19	18	342	LOW
KM4SII	MASON	83	77	6391	LOW	KB6NU	DAN	18	18	324	LOW
K8GT	GERRY	85	73	6205	LOW	GM2CWO	PETER	17	16	272	LOW
N9CK	STEVE	84	73	6132	LOW	VA2WA	VIC	16	15	240	LOW
CO6RD	REY	74	74	5476	LOW	AA2VG	PETER	16	15	240	LOW
WA3GM	GREG	84	65	5460	LOW	AA4NP	JIM	15	14	210	LOW
K4IU	FRED	73	69	5037	LOW	K3JHT	JOHN	10	10	100	LOW
K5GQ	MARK	70	70	4900	LOW	JH0MUC	TAQ	10	10	100	LOW
K4GMH	MIKE	68	68	4624	LOW	SE5L	BEN	9	9	81	LOW
CO2RQ	REY	70	66	4620	LOW	G4DYC	MIKE	11	7	77	LOW
N4HAI	TOM	70	65	4550	LOW	K0TNT	CARL	7	7	49	LOW
CM8NMN	NOE	67	67	4489	LOW	G8VPE	JOHN	2	2	4	LOW
W1QK	DAN	67	62	4154	LOW	OM4ANO	JURO	1	1	1	LOW
W4EE	JIM	69	58	4002	LOW	W1UU	PETER	123	102	12546	QRP
NF8M	FRANK	63	61	3843	LOW	W4QO	JIM	121	102	12342	QRP
KJ4M	GENE	60	57	3420	LOW	W6JTI	FRANK	114	95	10830	QRP
VE3RUA	JACK	58	56	3248	LOW	VE3MGY	BRIAN	91	76	6916	QRP
K8NZ	RON	57	55	3135	LOW	W0CWO	PAT	51	49	2499	QRP
WA5LXS	DENNIS	57	49	2793	LOW	W6GMT	BROCK	28	27	756	QRP
AA8TA	JOE	49	49	2401	LOW	K8LBQ	BAIN	25	25	625	QRP
WY6K	MIKE	50	48	2400	LOW	N4TMM	JIM	23	23	529	QRP
WA8OJR	BRUCE	48	48	2304	LOW	K6UFO	MORK	22	22	484	QRP
KE4KY	TOM	47	44	2068	LOW	UA6AK	VAL	9	9	81	QRP
KU7T	ANDY	44	44	1936	LOW	UT3EK	NICK	1	1	1	QRP

Session 1 Analysis: For Region 1 High Power, Roger (G2CWO) came in first with final numbers of 143 QSOs, 121 Multipliers and a score of 17303. Only one other submission for Region 1 topped the 100 QSO count and that was John (G4DRS) with a QSO count of 103, 97 mults and a score of 9,991. The Region 2 winner was Bud (AA3B) with an outstanding QSO count of 494, 274 Multipliers and the CWO 2018 overall high score of 135,356. Mark (N5ZO) was in second place with a score of 99,000. Region 3 did not qualify based on the 100 QSO requirement. Moving to low power, Region 1 and Region 3 did not qualify based on the 100 QSO minimum. Region 2 low power was won by Don (N4ZZ) with an outstanding QSO total of 350, 228 multipliers and a score of 79,800. Lar (K7SV) was not far behind with a score of 71,720. It was a photo finish in the QRP category with only a 2 QSO difference. Peter (W1UU) came in first with a QSO count of 123, a mult count of 102 and a score of 12,546. Jim (W4QO) finished with 121 QSOs, 102 mults and a score of 12,342.

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Session 2 – 1200 to 1600Z

Session 2 continued the outstanding results that Session 1 started. The log submission, again including logs from all ITU regions, increased to 246, up 34% over 2017. Once again, the QSO totals increased by 48%. The Multiplier totals increased by 69%. And, as expected, the resulting point totals went up by a HUGE 80%. Can these statistics carry over into Session 3? Keep reading!

CALL	NAME	QSOs	MULTs	SCORE	POWER	CALL	NAME	QSOs	MULTs	SCORE	POWER
AA3B	BUD	416	273	113568	HIGH	NW3Y	CHICK	147	128	18816	HIGH
K3WW	CHAS	382	265	101230	HIGH	KM0O	TONY	136	135	18360	HIGH
K0RF	CHUCK	365	273	99645	HIGH	K2CYE	MIKE	150	120	18000	HIGH
N3RS	SIG	341	258	87978	HIGH	WA8KAN	DAVE	141	118	16638	HIGH
N4AF	HOWIE	338	246	83148	HIGH	RM2U	MIKE	122	122	14884	HIGH
N3RD	DAVE	346	239	82694	HIGH	N6XI	RICK	119	119	14161	HIGH
VE3DZ	YURI	324	249	80676	HIGH	N4FP	WAYNE	128	103	13184	HIGH
K6AR	JIM	321	238	76398	HIGH	W7EE	GARY	122	105	12810	HIGH
N1LN	BRUCE	323	228	73644	HIGH	G3XLG	RAY	113	113	12769	HIGH
K5WA	BOB	304	237	72048	HIGH	WA3AAN	GRANT	127	99	12573	HIGH
K5TU	KIM	304	232	70528	HIGH	K7UT	DARRYL	117	100	11700	HIGH
N3AD	ALAN	307	224	68768	HIGH	W1EQ	BOB	105	102	10710	HIGH
N5ZO	MARK	309	212	65508	HIGH	K1ESE	JOHN	105	94	9870	HIGH
K3WJV	BILL	298	215	64070	HIGH	G4NVR	PHIL	97	96	9312	HIGH
K5AX	TOM	295	210	61950	HIGH	WN7S	DICK	101	91	9191	HIGH
K6RB	ROB	275	220	60500	HIGH	NN4K	MAC	96	94	9024	HIGH
W2OR	DJ	277	214	59278	HIGH	KE0EK	DAVID	99	90	8910	HIGH
LY8O	REMI	245	239	58555	HIGH	KM4HI	JIM	86	79	6794	HIGH
K0SN	TOM	280	208	58240	HIGH	K6MM	JOHN	81	81	6561	HIGH
K5KG	GEO	272	210	57120	HIGH	VE3MM	RICK	81	81	6561	HIGH
N8BJQ	STEVE	270	206	55620	HIGH	PA5WT	KEES	76	76	5776	HIGH
W5TM	ED	271	204	55284	HIGH	W8FN	RANDY	73	73	5329	HIGH
W2GD	JOHN	279	194	54126	HIGH	K9JWI	CLYDE	79	67	5293	HIGH
K0NM	NIZ	250	206	51500	HIGH	RA2F	SERG	71	71	5041	HIGH
K1EBY	FRANK	258	193	49794	HIGH	W1TO	TOM	70	70	4900	HIGH
KU8E	JEFF	254	193	49022	HIGH	G4IRN	JOHN	72	68	4896	HIGH
K3MD	JOHN	239	196	46844	HIGH	WA4JUK	JOE	67	67	4489	HIGH
K0VXU	RUSS	233	198	46134	HIGH	KJ9C	MEL	66	64	4224	HIGH
N4KS	KEN	244	187	45628	HIGH	K4GM	GEO	68	61	4148	HIGH
DK9PY	ARMIN	216	211	45576	HIGH	K9OZ	BRUCE	65	60	3900	HIGH
IT9VDQ	GIU	209	209	43681	HIGH	LZ1HW	SPAS	59	58	3422	HIGH
N3QE	TIM	228	188	42864	HIGH	CT7AGZ	KEN	58	58	3364	HIGH
VE1OP	SCOTT	206	206	42436	HIGH	OK1VK	PAVEL	58	58	3364	HIGH
K2TW	TOM	236	175	41300	HIGH	VE3TW	STAN	60	56	3360	HIGH
W3FV	BARRY	233	171	39843	HIGH	KE4S	DAVE	60	56	3360	HIGH
N4IQ	BILL	221	180	39780	HIGH	AD0AB	JIM	60	55	3300	HIGH
K4RO	KIRK	222	179	39738	HIGH	G4HZV	BOB	57	50	2850	HIGH
KC4D	BILL	227	168	38136	HIGH	OH2BN	JARMO	51	51	2601	HIGH
NA8V	GREG	206	173	35638	HIGH	OH3BCX	ZABA	50	50	2500	HIGH
K4OAQ	FRITZ	212	168	35616	HIGH	W0VX	DAVE	50	49	2450	HIGH
K1IMI	BERT	198	174	34452	HIGH	K8BZ	STEVE	43	43	1849	HIGH
G2CWO	ROGER	191	177	33807	HIGH	K0OO	PAT	47	39	1833	HIGH
WB0SND	MIKE	203	164	33292	HIGH	DK3AX	/GERD	40	40	1600	HIGH
N2NC	JOHN	207	155	32085	HIGH	LA8HGA	JON	40	40	1600	HIGH
N4TB	TERRY	198	152	30096	HIGH	AA7V	STEVE	38	38	1444	HIGH
N3JT	JIM	189	159	30051	HIGH	PA3DBS	PETER	35	35	1225	HIGH
K3CWO	MORSE	200	147	29400	HIGH	KB3Z	MARK	33	33	1089	HIGH
KE2CWO	MIKE	182	150	27300	HIGH	WH7W	MARK	32	32	1024	HIGH
NS9I	DWIGHT	182	149	27118	HIGH	K1RV	PI	31	31	961	HIGH
K8JQ	STEVE	186	142	26412	HIGH	K1USN	CLUB	28	28	784	HIGH
W6SX	HANK	166	146	24236	HIGH	UN7LDR	TOL	24	24	576	HIGH
K8RO	DALE	159	137	21783	HIGH	K4AVX	JOHN	21	21	441	HIGH
K2SX	DENNIS	163	128	20864	HIGH	VK7CW	STEVE	21	21	441	HIGH
G4DRS	JOHN	144	143	20592	HIGH	G3PXT	GORDON	17	17	289	HIGH
K4AFE	JOHN	160	127	20320	HIGH	PA0GRU	DICK	16	16	256	HIGH
IT9MUO	ALF	139	139	19321	HIGH	SA0BXV	CLAES	14	14	196	HIGH
K4WW	BO	148	129	19092	HIGH	RW3AI	VAL	13	13	169	HIGH

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CALL	NAME	QSOs	MULTs	SCORE	POWER	CALL	NAME	QSOs	MULTs	SCORE	POWER
K2UA	RUS	12	12	144	HIGH	VE3MA	AL	60	57	3420	LOW
DG0KS	MIKE	11	11	121	HIGH	KB4DE	BILL	59	56	3304	LOW
G3SQU	CHRIS	6	6	36	HIGH	K2MK	MIKE	56	53	2968	LOW
K4BAI	JOHN	2	2	4	HIGH	NF8M	FRANK	58	51	2958	LOW
N4ZZ	DON	285	219	62415	LOW	UR5MM	RUDY	52	52	2704	LOW
N4BP	BOB	243	243	59049	LOW	W5WZ	SCOTT	52	51	2652	LOW
K0AD	AL	274	187	51238	LOW	VE2NCG	NICK	50	46	2300	LOW
AB0S	TIM	261	189	49329	LOW	KE4KY	TOM	49	46	2254	LOW
WJ9B	WILL	254	189	48006	LOW	HI8A	RAFA	49	44	2156	LOW
W0UO	JIM	244	196	47824	LOW	VA3PM	PIERRE	45	39	1755	LOW
VE3KI	RICH	239	184	43976	LOW	VE3RUA	JACK	40	39	1560	LOW
NN5O	LARRY	217	165	35805	LOW	W1KM	GREG	40	37	1480	LOW
W1UJ	JAY	204	169	34476	LOW	VA3RKM	BOB	39	37	1443	LOW
W3KB	KEITH	199	157	31243	LOW	J11RXQ	HIRO	35	35	1225	LOW
W7ZRC	ROD	198	153	30294	LOW	WA0LJM	DAVE	34	33	1122	LOW
K7QA	TOM	198	149	29502	LOW	LZ1QV	DEKO	32	29	928	LOW
K1DJ	RICH	191	147	28077	LOW	GM2CWO	PETER	30	30	900	LOW
KN8CWO	JIM	183	153	27999	LOW	G3YLA	JIM	33	26	858	LOW
W8CAR	DAN	187	146	27302	LOW	IN3FHE	HELGA	27	27	729	LOW
K1VUT	DAVE	188	144	27072	LOW	K0PD	DAVE	27	26	702	LOW
K2ZR	DICK	184	142	26128	LOW	G4ILW	JAMES	26	25	650	LOW
KB3AAY	RON	160	135	21600	LOW	G4BSW	NIGEL	26	25	650	LOW
K8AJ	JOHN	161	131	21091	LOW	PD7CJT	CHRIS	25	25	625	LOW
KA5M	MARSH	156	116	18096	LOW	UT8AS	VLAD	25	25	625	LOW
N2AN	JEFF	146	121	17666	LOW	WA5LXS	DENNIS	24	24	576	LOW
KE2D	BOB	144	111	15984	LOW	N8TCP	ROGER	23	21	483	LOW
N8FYL	JOHN	141	111	15651	LOW	SE5L	BEN	22	21	462	LOW
KG9X	FRED	132	117	15444	LOW	EU6AA	VIC	20	20	400	LOW
NW0M	MITCH	125	98	12250	LOW	UR7VA	SERGE	20	20	400	LOW
K9GDF	RICH	126	96	12096	LOW	AB7MP	MARK	21	19	399	LOW
AB1J	KEN	122	99	12078	LOW	KF3G	SAM	19	18	342	LOW
N8EA	JOE	116	96	11136	LOW	UC4A	WOWA	18	18	324	LOW
KM4SII	MASON	109	101	11009	LOW	AJ1DM	JOHN	18	18	324	LOW
K4IU	FRED	119	91	10829	LOW	UW7LL	YARIK	16	16	256	LOW
SM5IMO	DAN	105	102	10710	LOW	K8NZ	RON	16	16	256	LOW
N5TOO	VAN	109	97	10573	LOW	AH6KO	STAN	16	16	256	LOW
K5XU	MIKE	115	91	10465	LOW	G0WCZ	GRAE	15	15	225	LOW
N1DC	RICK	104	100	10400	LOW	W6YR	JOE	13	13	169	LOW
K8GT	GERRY	108	92	9936	LOW	AI6V	WYATT	12	12	144	LOW
KP3W	JOSE	104	94	9776	LOW	KG3V	TOM	12	12	144	LOW
KT5CWO	BILL	110	88	9680	LOW	AA2VG	PETER	12	12	144	LOW
AD5TT	JIM	108	89	9612	LOW	KJ4M	GENE	11	11	121	LOW
W2NRA	ART	100	90	9000	LOW	KR2AA	ERIC	11	11	121	LOW
N5XE	CARL	99	89	8811	LOW	R9SS	VLAD	10	10	100	LOW
W8OV	DAVE	99	86	8514	LOW	AA8TA	JOE	9	9	81	LOW
K1DW	DALLAS	100	84	8400	LOW	VK4TJF	JAMES	9	9	81	LOW
N7WY	BOB	100	77	7700	LOW	K8RGI	BOB	8	8	64	LOW
K3SEN	DALE	90	81	7290	LOW	G8VPE	JOHN	8	7	56	LOW
KG5U	DALE	88	80	7040	LOW	WA3GM	GREG	7	7	49	LOW
KM4FO	DWIGHT	84	80	6720	LOW	WA8KBU	WALT	7	7	49	LOW
N0EO	NEO	84	77	6468	LOW	WB2NVR	BOB	7	7	49	LOW
K7AZT	PAUL	86	73	6278	LOW	KW1K	JOE	6	6	36	LOW
KT5V	DAVID	88	71	6248	LOW	JH0MUC	TAQ	6	5	30	LOW
CO6RD	REY	83	73	6059	LOW	F5BTH	AL	5	5	25	LOW
NS2N	PAUL	79	73	5767	LOW	RV3VR	001VIT	5	5	25	LOW
WN4AFP	DAVE	77	74	5698	LOW	AB4WL	KEN	5	5	25	LOW
AA4NP	JIM	81	70	5670	LOW	W1UU	PETER	121	107	12947	QRP
K3HW	BILL	76	74	5624	LOW	W4QO	JIM	121	104	12584	QRP
W4EE	JIM	72	72	5184	LOW	W6GMT	BROCK	33	33	1089	QRP
KT4XN	TOM	75	68	5100	LOW	N4TMM	JIM	31	30	930	QRP
K5IX	DAVE	80	63	5040	LOW	K1SX	DAVE	29	29	841	QRP
N2UU	BOB	71	68	4828	LOW	UT3EK	NICK	25	25	625	QRP
K4TZ	TOM	72	66	4752	LOW	K6UFO	MORK	23	22	506	QRP
N5JR	JOEL	68	68	4624	LOW	UA6AK	VAL	15	15	225	QRP
K2PI	HARV	71	63	4473	LOW	WU4B	CLARK	15	15	225	QRP
CM8NMN	NOE	67	57	3819	LOW	K8LBQ	BAIN	14	14	196	QRP

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Session 2 Analysis: For Region 1 High Power, Remi (LY8O) came in first with a QSO count of 245, a mult count of 239 and a score of 58,555. Armin (DK9PY) came in second with a QSO count of 216, a mult count of 211 and a score of 45,576. Region 2 was again won by Bud (AA3B) with a QSO count of 416, a mult count of 273 and a score of 113,568. Chas (K3WW) came in second with a QSO count of 382, a mult count of 265 and a score of 101,230. Moving to low power, Region 1, Dan (SM5IMO) came in first with a QSO count of 105, a mult count of 102 and a score of 10,710. Don (N4ZZ) came in first for Region 2 with a QSO count of 285, a mult count of 219 and a score of 62,415. Bob (N4BP) came in second with a QSO count of 243, a mult count of 243 and a score of 59,049. The QRP category was once again a very close one between Peter and Jim. First place was won by Peter (W1UU) with a QSO count of 121, a mult count of 107 and a score of 12,947. Jim (W4QO) came in second with the same QSO count of 121, a mult count of 104 (3 less) and a score of 12,584.

Session 3 - 2000Z to 0000Z

Yes, the outstanding results just keep on coming! Session 3 log submissions increased to 245 up 32%, again with all three ITU regions submitting logs. The QSO totals were up by 28%. The Multiplier totals were up by 37%. The point total increased by 29%. What a great way to finish the 2018 CW Open.

CALL	NAME	QSOs	MULTs	SCORE	POWER	CALL	NAME	QSOs	MULTs	SCORE	POWER
AA3B	BUD	440	270	118800	HIGH	N4IQ	BILL	197	171	33687	HIGH
K3WW	CHAS	394	258	101652	HIGH	VA2WA	VIC	197	167	32899	HIGH
K0RF	CHUCK	330	252	83160	HIGH	N4FP	WAYNE	200	160	32000	HIGH
K6AR	JIM	326	253	82478	HIGH	N3JT	JIM	202	155	31310	HIGH
N4AF	HOWIE	327	239	78153	HIGH	K4AFE	JOHN	198	147	29106	HIGH
N3RS	SIG	330	218	71940	HIGH	K8JQ	STEVE	186	144	26784	HIGH
K5TU	KIM	302	236	71272	HIGH	G2CWO	ROGER	191	133	25403	HIGH
N3QE	TIM	314	226	70964	HIGH	K4RO	KIRK	178	133	23674	HIGH
N3RD	DAVE	324	205	66420	HIGH	K1IMI	BERT	160	132	21120	HIGH
N3AD	ALAN	315	210	66150	HIGH	VE3MM	RICK	158	128	20224	HIGH
W2OR	DJ	289	221	63869	HIGH	WA3AAN	GRANT	159	120	19080	HIGH
N1LN	BRUCE	297	213	63261	HIGH	K4WW	BO	151	126	19026	HIGH
K5AX	TOM	290	215	62350	HIGH	LY8O	REMI	153	115	17595	HIGH
AE6Y	ANDY	261	220	57420	HIGH	AD8J	JOHN	146	119	17374	HIGH
VE1OP	SCOTT	269	212	57028	HIGH	WA8KAN	DAVE	146	119	17374	HIGH
K2TW	TOM	273	195	53235	HIGH	W7EE	GARY	131	118	15458	HIGH
K9CT	CRAIG	268	191	51188	HIGH	WA4JUK	JOE	130	118	15340	HIGH
K6RB	ROB	235	213	50055	HIGH	K7UT	DARRYL	127	117	14859	HIGH
K5WA	BOB	256	195	49920	HIGH	G4DRS	JOHN	129	114	14706	HIGH
K0SN	TOM	233	211	49163	HIGH	W9CWO	CJ	122	119	14518	HIGH
W2GD	JOHN	275	176	48400	HIGH	K6MM	JOHN	119	119	14161	HIGH
K3MD	JOHN	261	182	47502	HIGH	KE0EK	DAVID	126	107	13482	HIGH
W3FV	BARRY	265	177	46905	HIGH	AA7V	STEVE	122	104	12688	HIGH
N8BJQ	STEVE	257	176	45232	HIGH	WN7S	DICK	120	104	12480	HIGH
WB0SND	MIKE	239	184	43976	HIGH	W9ILY	JOHN	114	105	11970	HIGH
K1EBY	FRANK	236	182	42952	HIGH	KW1K	JOE	110	101	11110	HIGH
N4KS	KEN	225	190	42750	HIGH	VE3NNT	LES	114	96	10944	HIGH
KU8E	JEFF	242	174	42108	HIGH	K3PP	GLENN	117	93	10881	HIGH
K4OAQ	FRITZ	224	176	39424	HIGH	W6SX	HANK	103	103	10609	HIGH
K3WJV	BILL	223	176	39248	HIGH	KJ9C	MEL	108	97	10476	HIGH
W5TM	ED	227	170	38590	HIGH	K3CWO	SUMMER	100	95	9500	HIGH
W1QK	DAN	227	170	38590	HIGH	N5NA	ALAN	101	91	9191	HIGH
N2NC	JOHN	221	171	37791	HIGH	K1SM	BILL	101	84	8484	HIGH
K0NM	NIZ	217	173	37541	HIGH	W5JK	STEVE	102	83	8466	HIGH
KE2CWO	MIKE	213	173	36849	HIGH	G4NVR	PHIL	103	80	8240	HIGH
KE1B	RICH	206	178	36668	HIGH	K4GM	GEO	95	85	8075	HIGH
W6EU	JIM	196	186	36456	HIGH	K2RD	IRA	91	82	7462	HIGH

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CALL	NAME	QSOs	MULTs	SCORE	POWER	CALL	NAME	QSOs	MULTs	SCORE	POWER
KM4HI	JIM	94	79	7426	HIGH	AB1J	KEN	145	116	16820	LOW
NW3Y	CHICK	92	77	7084	HIGH	N8LR	GARY	146	115	16790	LOW
G3XLG	RAY	93	73	6789	HIGH	N2AN	JEFF	145	113	16385	LOW
NN4K	MAC	81	81	6561	HIGH	N5XE	CARL	137	111	15207	LOW
K2UA	RUS	80	80	6400	HIGH	KA5M	MARSH	134	111	14874	LOW
N0AT	RON	78	70	5460	HIGH	K5XU	MIKE	124	105	13020	LOW
K6DGW	SKIP	78	70	5460	HIGH	KT5V	DAVID	125	101	12625	LOW
N5VR	BILL	77	70	5390	HIGH	NJ5N	CHRIS	117	100	11700	LOW
W3UL	BILL	70	68	4760	HIGH	N5TOO	VAN	109	104	11336	LOW
K8BZ	STEVE	68	68	4624	HIGH	KT5CWO	BILL	113	91	10283	LOW
K0OO	PAT	63	59	3717	HIGH	KG5HVO	BRYANT	104	98	10192	LOW
G4HZV	BOB	66	56	3696	HIGH	KM4SII	MASON	107	95	10165	LOW
WA6URY	DAN	58	57	3306	HIGH	W8OV	DAVE	112	89	9968	LOW
K9JWI	CLYDE	57	54	3078	HIGH	NS2N	PAUL	107	91	9737	LOW
OK1RR	MARTIN	54	44	2376	HIGH	AD5TT	JIM	109	85	9265	LOW
K6DAJ	DAVE	49	48	2352	HIGH	N2UU	BOB	98	87	8526	LOW
K1ESE	JOHN	48	48	2304	HIGH	W0CO	BRAD	95	89	8455	LOW
SM0FPR	MATS	51	40	2040	HIGH	KM4FO	DWIGHT	96	88	8448	LOW
KE4S	DAVE	45	45	2025	HIGH	AA4NP	JIM	92	91	8372	LOW
K1RV	PI	46	42	1932	HIGH	CO6RD	REY	97	86	8342	LOW
K2SX	DENNIS	42	42	1764	HIGH	WA8OJR	BRUCE	94	86	8084	LOW
OH3BCX	ZABA	41	41	1681	HIGH	N1VH	MARTY	98	80	7840	LOW
N3RC	ROGER	42	40	1680	HIGH	N2YO	CHIP	94	82	7708	LOW
VE3TW	STAN	37	35	1295	HIGH	K4GMH	MIKE	87	87	7569	LOW
AD0AB	JIM	36	33	1188	HIGH	CM8NMN	NOE	91	78	7098	LOW
VE3NE	LALI	32	32	1024	HIGH	K8GT	GERRY	85	77	6545	LOW
UX1HW	ART	31	31	961	HIGH	K3HW	BILL	87	74	6438	LOW
KC4D	BILL	31	31	961	HIGH	KT4XN	TOM	78	73	5694	LOW
W1EQ	BOB	31	30	930	HIGH	KJ4M	GENE	73	70	5110	LOW
LA8HGA	JON	31	27	837	HIGH	W4EE	JIM	77	65	5005	LOW
K2PI	HARV	28	28	784	HIGH	HI8A	RAFA	75	63	4725	LOW
KM0O	TONY	26	26	676	HIGH	IN3FHE	HELGA	64	59	3776	LOW
NS9I	DWIGHT	26	26	676	HIGH	VE3RUA	JACK	63	55	3465	LOW
WH7W	MARK	25	25	625	HIGH	WA5LXS	DENNIS	60	50	3000	LOW
G3PXT	GORDON	28	21	588	HIGH	G3YLA	JIM	60	49	2940	LOW
W1TO	TOM	24	24	576	HIGH	NF8M	FRANK	54	48	2592	LOW
HB9ARF	PHIL	21	21	441	HIGH	K9NW	MIKE	49	49	2401	LOW
RW3AI	VAL	15	15	225	HIGH	K0TC	RON	50	48	2400	LOW
LZ1ZJ	SLAV	15	15	225	HIGH	WY6K	MIKE	51	47	2397	LOW
G4IRN	JOHN	10	10	100	HIGH	K0GUZ	STEVE	51	47	2397	LOW
YO3GNF	JACK	9	9	81	HIGH	LZ1QV	DEKO	52	43	2236	LOW
G3SQU	CHRIS	7	7	49	HIGH	UR5MM	RUDY	52	43	2236	LOW
K4BAI	JOHN	5	5	25	HIGH	WN4AFP	DAVE	47	47	2209	LOW
N4BP	BOB	318	250	79500	LOW	VE3FJ	NICK	47	47	2209	LOW
N4ZZ	DON	290	193	55970	LOW	W1KM	GREG	55	40	2200	LOW
W1UJ	JAY	234	183	42822	LOW	K4TZ	TOM	47	45	2115	LOW
W0UO	JIM	232	180	41760	LOW	K8RGI	BOB	44	42	1848	LOW
K0AD	AL	229	177	40533	LOW	K7JOE	JOE	44	42	1848	LOW
WJ9B	WILL	206	193	39758	LOW	K9FO	WILL	41	41	1681	LOW
VE3KI	RICH	215	168	36120	LOW	WA0LJM	DAVE	40	40	1600	LOW
N4OX	JAY	209	170	35530	LOW	G4BSW	NIGEL	38	38	1444	LOW
K7QA	TOM	193	178	34354	LOW	K5WQG	ED	36	36	1296	LOW
NN5O	LARRY	197	172	33884	LOW	K3SEN	DALE	36	36	1296	LOW
K1VUT	DAVE	207	158	32706	LOW	N8TCP	ROGER	36	33	1188	LOW
KG9X	FRED	208	151	31408	LOW	UT8AS	VLAD	35	28	980	LOW
N5JR	JOEL	193	160	30880	LOW	VE7DZO	DAVID	29	29	841	LOW
NW0M	MITCH	185	151	27935	LOW	W6YR	JOE	28	25	700	LOW
KG5U	DALE	190	146	27740	LOW	AJ1DM	JOHN	26	26	676	LOW
KE2D	BOB	199	135	26865	LOW	K7AZT	PAUL	26	26	676	LOW
W3KB	KEITH	171	136	23256	LOW	K3SV	BILL	26	26	676	LOW
N1DC	RICK	171	131	22401	LOW	RA5AQ	NICK	30	21	630	LOW
VE2IR	DON	161	125	20125	LOW	AB7MP	MARK	24	24	576	LOW
K2ZR	DICK	158	127	20066	LOW	AA8TA	JOE	24	24	576	LOW
N8II	JEFF	151	127	19177	LOW	GM2CWO	PETER	25	23	575	LOW
KB3AAY	RON	151	121	18271	LOW	SE5L	BEN	24	23	552	LOW
KE4KY	TOM	152	119	18088	LOW	SQ9S	ADAM	23	23	529	LOW
K1DJ	RICH	145	119	17255	LOW	VA3PM	PIERRE	24	22	528	LOW
N8EA	JOE	146	116	16936	LOW	N0EO	NEO	21	21	441	LOW

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CALL	NAME	QSOs	MULTs	SCORE	POWER	CALL	NAME	QSOs	MULTs	SCORE	POWER
VE3MA	AL	21	21	441	LOW	W9IE	KEN	7	7	49	LOW
OH2MZA	ZABA	20	20	400	LOW	JK8PBO	MASA	3	3	9	LOW
K2MK	MIKE	20	20	400	LOW	N4CU	BOB	3	3	9	LOW
G0WCZ	GRAE	21	19	399	LOW	K9GDF	RICH	1	1	1	LOW
K5IX	DAVE	20	19	380	LOW	JL2OGZ	TAC	1	1	1	LOW
RV3MR	VLAD	22	17	374	LOW	J14JGD	TAKA	1	1	1	LOW
K0JZ	CLARENCE	19	19	361	LOW	W1UU	PETER	142	120	17040	QRP
G8VPE	JOHN	20	17	340	LOW	N0UR	JIM	127	97	12319	QRP
AI6V	WYATT	18	18	324	LOW	W4QO	JIM	108	96	10368	QRP
N4HAI	TOM	15	15	225	LOW	UA6AK	VAL	53	53	2809	QRP
WA8KBU	WALT	15	15	225	LOW	W0CWO	PAT	46	44	2024	QRP
W2NRA	ART	13	13	169	LOW	N3GD	LEO	44	44	1936	QRP
AH6KO	STAN	13	13	169	LOW	W6GMT	BROCK	29	29	841	QRP
K1TW	TOM	12	12	144	LOW	MM3AWD	SCOTT	27	27	729	QRP
KF3G	SAM	11	11	121	LOW	N4TMM	JIM	26	26	676	QRP
KK1W	JIM	11	11	121	LOW	UT3EK	NICK	29	21	609	QRP
G4DYC	MIKE	12	9	108	LOW	K6UFO	MORK	22	22	484	QRP
JH0MUC	TAQ	10	10	100	LOW	WU4B	CLARK	9	9	81	QRP
AA2VG	PETER	9	9	81	LOW						

Session 3 Analysis: For Region 1 High Power once again went to Roger (G2CWO) with a QSO count of 191, a mult count of 133 and a score of 25,403. Remi (LY8O) came in second with a QSO count of 153, a mult count of 115 and a score of 17,595. Region 2 was again won by Bud (AA3B) with a QSO count of 440, a mult count of 270 and a score of 118,800. Chas (K3WW) again came in second with a QSO count of 394, a mult count of 258 and a score of 101,652. Moving to low power, Region 1 and 3 did not have the 100 QSO totals to qualify for the award. In Region 2 the low power category was won by Bob (N4BP) with a QSO count of 318, a mult count of 250 and a score of 79,500. Don (N4ZZ) came in second with a QSO count of 290, a mult count of 193 and a score of 55,970. The QRP category was again won by Peter (W1UU) with a QSO count of 142 a mult count of 120 and a score of 17,040. Jim (N0UR) came in second with a QSO count of 127, a mult count of 97 and a score of 12,319.

Team Scores

Putting together a team to participate in the CW Opens is always a fun way to increase participation and friendly intra and inter team competition. This year we had 16 teams register. The team sizes ranged from only 3 members up to the maximum allowed of 10 members. We also had our first all-Region 1 team register this year. Team UK was a full 10-member team with all members participating. It was a great year for teams. If you missed out, give it a try next year.

FRC Team 1	Deep Dixie CC - Team Elvis	West Gulf Team Twiga	FRC Team 2
AA3B 367,724	AB0S 101,825	W0UO 139,513	KE2D 76,233
W3KB 85,357	K0RF 203,981	K0NM 125,167	K3MD 144,666
K3WW 300,298	K5KG 129,048	K5AX 170,272	KN3A 0
K3HW 13,023	K6RB 185,329	W8FN 62,091	K3PP 20,582
K3WJV 182,087	KE8G 0	K5TU 235,660	N2NT 35,404
W2GD 158,326	KU8E 164,060	N5XE 34,899	N2NC 97,338
N3AD 188,171	N4BP 183,629	K5IX 5,780	NW3Y 25,900
N3RD 229,150	N8BJQ 154,074	K5WA 200,687	K2TW 151,927
N3RS 235,842	W5TM 151,686	KG5U 80,364	WA3AAN 31,653
W3FV 134,150	WB0SND 117,631	KT5V 29,103	K2CYE 50,802
1,894,128	1,391,263	1,083,536	634,505

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Deep Dixie CC - Team Magnolia		Superfists		Deep Dixie CC - Team Kudzu		A Bunch of Zeros	
K4AFE	86,551	K0SN	160,001	NN5O	120,185	K0AD	137,953
AD5TT	18,877	W7EE	34,592	AD0AB	5,512	N0AT	5,460
IT9MUO	24,001	K7QA	101,065	AI6V	468	N0UR	12,319
IT9VDQ	43,681	<u>W7XT</u>	0	K4BAI	71,749	K0TNT	49
K4OAQ	118,280		295,658	K7JOE	1,848	N0EU	0
KE2CWO	101,885			KG5HVO	10,192	KM0O	51,147
						W0CWO (K0PC)	4,523
K4XU	0			KM4HI	21,374		
K8FU	0			KM4SII	27,565	K4IU	15,866
KC4D	85,561			<u>VE7DZO</u>	841	K0TC	3,522
N3JT	89,101				259,734	<u>W6GMT</u>	0
	567,937						230,839

K1USN Radio Club		Team UK		West Gulf Team Nyumbu		Deep Dixie CC - Team Cotton	
N1DC	55,551	G4ILW	1,300	NM5M	0	N4FP	77,161
K1VUT	90,621	G2CWO	76,513	WA5XLS	6,369	WF3C	42,042
K1RV	8,813	G3XLG	25,318	AF5DM	0	K3SV	11,623
N1VH	7,840	G3YLA	5,631	AD5A	77,034	<u>KW1K</u>	11,696
K1DJ	64,988	G4BSW	3,250	K0ZU	0		142,522
<u>K1USN</u>	<u>784</u>	G4DRS	45,289	WY6K	4,797		
	228,597	G4HZV	10,316	KT5CWO	28,043		
		G4IRN	4,996	W5JK	16,012		
		G4NVR	23,782	N5JR	54,026		
		<u>GM2CWO</u>	<u>1,747</u>	<u>K5GQ</u>	<u>4,900</u>		
			198,142		191,181		

CW for the People		Kentucky Contest Group		NoGaQRPnutS		FRC Team 3	
AB1J	47,542	KM4FO	26,824	W4QO	35,294	W3FIZ	0
N8FYL	15,651	K4FXN	0	K2UFT	0	N9GG	0
K8RO	29,081	K4AVX	441	WU4B	306	<u>K2SG</u>	0
W1EQ	19,254	K4WW	71,738	<u>N4TMM</u>	2,135		0
<u>WN4AFP</u>	16,184	KE4KY	22,410		37,735		
	127,712	KU4A	0				
		<u>KM4CH</u>	0				
			121,413				

Team Analysis:

The top team this year was the SRC Team 1 with a final score of 1,894,128. The winning score was over 400,000 points more than last year's winning team score. All 10 members participated in all three sessions giving them a major advantage. The Deep Dixie CC – Team Elvis group came in second with 9 members reporting and a score of 1,391,263.

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Trophies and Plaques:

Below is a listing of the 2018 Trophy and Plaque winners. As in the past, should the same individual qualify for more than one award, the awards will be grouped on one Trophy or Plaque.

Trophies: High Score, each session, each ITU Region

Remi Vaicius- LY80

Combined Scores, ITU Region 1 Winner

492 QSOs 434 Multipliers 83670 points

Session 2, ITU Region 1, Winner

245 QSOs 239 Multipliers 58555 points

Roger Cooke (G3LDI) - G2CWO

Session 1, ITU Region 1, Winner

143 QSOs 121 Multipliers 17303 points

Session 3, ITU Region 1, Winner

191 QSOs 133 Multipliers 25403 points

Joseph "Bud" Trench, AA3B

Combined Scores, ITU Region 2 Winner

1350 QSOs 817 Multipliers 367,724 points

Session 1, ITU Region 2, Winner

494 QSOs 274 Multipliers 135,356 points

Session 2, ITU Region 2 High Power Winner

416 QSOs 273 Multipliers 113,568 points

Session 3, ITU Region 2 High Power Winner

440 QSOs 270 Multipliers 118,800 point

Plaques: High Score, All power levels (HP, LP, QRP), each session, each ITU Region High Power -

Roger Cooke (G3LDI) - G2CWO

Session 1, ITU Region 1, High Power Winner

143 QSOs 121 Multipliers 17,303 points

Session 3, ITU Region 1, High Power Winner

191 QSOs 133 Multipliers 25,403 points

Remi Vaicius - LY80

Session 2, ITU Region 1, High Power Winner

245 QSOs, 239 Multipliers 58,555 points

Joseph "Bud" Trench, AA3B

Session 1, ITU Region 2, High Power Winner

494 QSOs 274 Multipliers 135,356 points

Session 2, ITU Region 2 High Power Winner

416 QSOs 273 Multipliers 113,568 points

Session 3, ITU Region 2 High Power Winner

440 QSOs 270 Multipliers 118,800 points

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Low Power -

Dan Hultgren, SM5IMO

Session 2, ITY Region 1 Low Power Winner

105 QSOs	102 Multipliers	10,710 points
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Don Binkley, N4ZZ

Session 1, ITU Region 2 Low Power Winner

350 QSOs	228 Multipliers	79,800 points
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Session 2, ITU Region 2 Low Power Winner

285 QSOs	219 Multipliers	62,415 points
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Bob Patten, N4PB

Session 3, ITU Region 2, Low Power Winner

318 QSOs	250 Multipliers	79,500 point
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QRP -

Peter Butler, W1UU

Session 1, ITU Region 2, QRP Winner

123 QSOs	102 Multipliers	12,546 points
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Session 2, ITU Region 2 QRP Winner

121 QSOs	107 Multipliers	12,947 points
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Session 3, ITU Region 2 QRP Winner

142 QSOs	120 Multipliers	17040 points
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In summary: Congratulations to the winners of trophies and plaques in the 2018 CW Open. Thanks to EVERYONE that participated in the contest sessions to make them both fun and exciting. Thank you also to Rob, K6RB, for log processing and checking; and to Alf, IT9MUO; Dai, JF2IWL; and Scott, VK7CW for their assistance in ITU Regions 1 and 3 helping to spread the word about the 2018 CW Open.

Finally, as stated above, the participation was significantly up this year and perhaps directly related to the 30% increase in CW Ops membership. As we enter another year for CWOps, I ask each member to look at their logbooks and think about nominating someone for membership. To be qualified the nominee only requires 2 QSOs with a CWO member within the last year at a 25 wpm or higher speed. For specifics refer to the CWO web page at: <https://cwops.org/nomination-form/>. From the CW Open or weekly CWTs perspective, each new member represents one new multiplier and several more QSOs.

73,

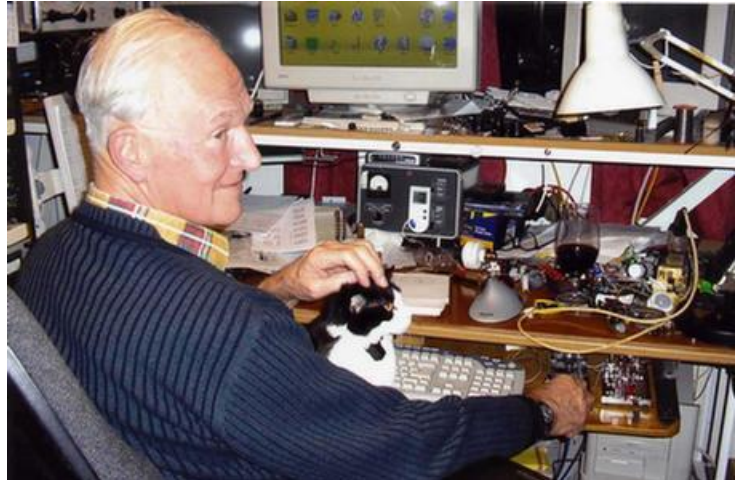
Bruce, N1LN, CW Open



Recollections of a Morse Teacher

[Mort Mortimer, G2JL](#)

Some might reasonably suppose those teaching Morse are having a sort of ego-trip. To me, it was a selfless, free devotion to public service, in the hope of passing on Telegraphic Literacy to benighted seekers after a ticket wanting to prattle into microphones. "Microphones for Micro Minds" I reckon. Detractors might counter with "Morse for Maniacs". OK, so far, a draw. Some readers will have seen my E-mails. Today's rotten conditions make many of us resort to mindless chatting. So, at risk of boring some of you fellow-sufferers (do I hear cries of "You ? Boring ? NEVER !" — No ?) Ah, well perhaps it's my powerful imagination at work again, as when I think I hear a W6 answer my CQ.



It is readily observed that infants, children, cats, dogs and horses - and to a small extent, teenagers and politicians - understand many words long before they can say anything meaningful to adults, and the last five never manage it. The ability to mimic sounds depends on *hearing* the sounds well in the first place. The Tarzan story by Edgar Rice Burroughs, distorted beyond recognition by Hollywood, has the orphan infant Lord Greystoke learning English from a primer his parents had ready. He had never heard words; he could not possibly have *spoken* to his discoverer, who was French anyhow. He pointed to a tree; his picture-book said "Tree". The Frenchman told him it was an *Arbre*. What a crazy mixed-up kid his Lordship must have been.

Thus, I contend that sending code is the *very last thing* one needs to learn. As with radio operating itself, the first three rules are "Listen, Listen, and, - Listen" - in that order. Only when you know well what you are trying to do should you try to do it. Furthermore, we note that the alphabet is very oddly arranged, and unless one is steeped in cryptanalysis would one realise that the frequency-of-occurrence order of letters is E T A O N R I S H and so on. Vail did an excellent job of allotting dots and dashes in economical order for the revised alphabetical Morse telegraph. It had started with mere numbers and a code-book to look them up. Number 91926 meant "Send Gold to G2JL". Naturally, it was soon replaced by a literal system. Now, that literal list IS boring to learn. Thus, I set pupils off on numerals, which are logical, and can be committed to memory in a minute. The luckless pupils spent their first sessions copying figure-groups at 15 or so wpm, Farnsworthed to be as slow as necessary. Again, I repeat slow Morse is meaningless. Even if you are learning French in an English school, and our language-teaching is the worst in the universe, nobody expects you to understand the well-known [?] expression "I will tie the umbrellas together" [no joke; I really did find that in a phrase-book] when pronounced at four words a minute, when a Frenchman says it more like four hundred.

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It was necessary for brief periods of intense listening to the rubbish I sent them to be interspersed with light relief. "Why did the chicken cross the road?" To get to his Morse class". After few, very few, such lustrous gems, they were refreshed, and ready to begin again.

An amusing digression; one student was an airline flight engineer for a Persian Gulf state firm on a vacation in England and bought a new car. He drove back with his XYL to The East, via Iron Curtain countries. In Bulgaria, he went out to get some bread & cheese to make a sandwich. A neatly dressed fellow in a long grey raincoat & a hat came up to him and told him that as a Foreign Visitor, he was entitled to barge in at the head of the orderly queue [line-up]. He declined, not wanting to offend anyone, but continued to chat to the helpful Secret Policeman, and ask about sights to see & so on. Later, back at his hotel, there was a sudden rap on the door and his recent acquaintance, with a uniformed officer, asked him to accompany him to the police station. In some trepidation, off he went. They put him in an empty room, with just a table & a few chairs. A tape-recorder was placed before him, and a notepad and pencil. They shoved in a cassette and asked him to write down the words he heard. It turned out to be howling 'popular [?] music' by an English group called The Beatles. They had North British accents but tried to imitate United States' singers. With considerable difficulty, he managed. The police drove him back to his hotel, a bemused and relieved fellow.



Back to teaching Morse: when the pupils were competent, if limited, telegraphists, I introduced letters a few at a time. Then, when they had all the alphabet and a few necessary prosigns [not needed for the test, but important later if they chose The Right Way], they started learning to send. Another amusing digression (to me, but then, I'm risible) is that the rules of the day required that one send /A, /P, /MM in appropriate situations. The test did not include the code for "/", though!

Using the electric key meant they learned to expect correctly-formed code from their own fingers. Finally, when the straight key had to be learned, naturally, they would try to imitate similar timing. Accordingly, I brought along straight keys from my collection, which they passed round each week. One never knew what monstrosity they might be expected to use when going for the test. I was lucky with mine, at the place I went in Southampton. Towards the end of compulsory testing to get one's licence, I seem to recall that The Authorities allowed candidates to bring their own pump-handles.

Sadly, people being what they are, I lost many keys that way. Despite my recollections, I did not always re-collect.

CWops Tests

[Rich Ferch VE3KI](#)

As of November 2 (i.e. after the October 31/November 1 CWTs), we had completed 132 of this year's 156 CWT sessions.

At that point, there were 5 members who had entered scores in all 132 sessions so far: K0MP, N5PHT, UR5MM, VE3MV and W0TG. Gold attendance stars to all of them! and of course, they have all already qualified for the gold medallion.

In addition, the following other members had already qualified for gold as of November 2: 4X6GP, AH6KO, F6JOE, I5EFO, IN3FHE, K1DW, K3WW, K3ZGA, K4OAQ, KE4RG, LZ1HW, N0TA, N4FP, N4ZZ, NS8O, OH1ZAA, SM0CUH, W1UU, W6SX, W5TM, W7OM, and W9CC. There are plenty more who are within striking distance; I estimate that there will be about 65 members reaching the gold medal level by the end of the year, another 90 or so silver, and close to 80 more bronze.

Altogether there have been 857 amateurs who posted CWT scores to 3830scores.com so far this year. Of those, 211 were non-members (some possible new members there?). Some of those folks only posted once or twice. But even if we only count people who have entered scores in at least ten CWTs this year, that adds up to 442 people who enjoyed the CWTs well enough to show up at least ten times.

Not all of them show up at the same time, of course. Our highest attendance so far this year has been 245 scores submitted for the 1300Z CWT on August 1. The highest in October was 237 for the 1300Z session on October 24. The lowest number of scores reported in a session in October was on the same day, 146 in the 0300Z session October 25.

Now that most of North America has switched back to standard time (Europe too, a week earlier), we can expect the participation in the 0300Z session to increase, while participation at 1300Z will probably decline somewhat. As I write this, there were more than 180 who had reported for the 0300Z session November 8, virtually as many as in the 1300Z session.

And for those of you interested in high scores, how does 223 QSOs (K3WW, 1300Z October 17) sound for one hour's work? Not quite a record for the CWT (the record is 230 QSOs from January this year), but pretty amazing. The average is not quite so daunting; adding up the total of all scores submitted last month and dividing by adding up the total of the numbers of logs reported comes up with an average QSO count per log of about 55, which I'd bet still seems pretty good to many of us.

We do the CWTs because they're fun; let's all make sure they continue to be fun for everyone.

73,

Rich, VE3KI, CWT Manager



CW Academy

[Jerry Weisskohl, AC4BT](#)

We are near the conclusion of the September - October 2018 semester of CW Academy (CWA). Several classes are still on-going due to a later semester start. I will report the final results of the semester in next month's column.

Student signups to our popular and unique service for teaching CW continue to roll in at a record pace. We have had approximately 1,500 new signups since the beginning of this year and have already exceeded the previous record for student signups in one calendar year.

Our CW Academy program continues to grow. Many aspiring CW operators sign up for our programs after hearing the positive results and success stories that others had experienced using our proven methods. The Academy's personal and interactive approach to teaching is unique. There are many web sites that offer advice to aspiring CW students, but the Academy goes several steps further by placing students in a classroom setting – paddle in hand, evaluating the students CW strengths and weaknesses in real time and then tailoring the 16 sessions in the semester to help each student build confidence and overcome CW obstacles. The student who stays the course emerges as a competent CW operator.

Our 8-week Internet based classroom instruction for Level 1, Level 2, and Level 3 courses offers an opportunity to work with some of the most accomplished CW operators serving as Advisors. These advisors make themselves available to our students because they love CW and want to pass on their passion for our great hobby. What better way is there to ensure that CW continues to be heard on the bands well into the future?

As always, with an unrelenting flow of incoming applications, CW Academy needs more Advisors. Anyone who knows CW well and has a passion to help others can become an Advisor. Seize the opportunity to give something back to our great hobby and serve as an Advisor. It's not a huge time commitment, classes are held two times a week for an 8-week period. We have three semesters a year – Jan/Feb, Apr/May, and Sep/Oct. We offer Advisor training and provide the curriculum materials that are utilized in our courses.

Please help us out so that we can continue to provide this unique service to the many aspiring CW operators out there who are looking to improve their CW skills with the CW Academy. To volunteer as an Advisor [please visit our web page](#).

Below are 2 emails that were sent to me at the end of this semester by graduating students expressing their gratitude to the Academy and the Advisors for giving them the opportunity to be successful in learning and improving their CW skills.

Level 1 student, Advisor was Mac NN4K: "I'm writing to thank you for keeping me in mind when an opening appeared in this fall's Level 1 class conducted by Mac NN4K. The time spent with Mac and Ned was invaluable and the discipline of the CW Academy course work and practice greatly helped me along my journey to be a competent CW operator. The course and the experience exceeded my expectations and helped me to set new goals with a plan for practice in the weeks and months to come. I will be working toward eligibility for a Level 2 session in the coming year."

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Level 1 student, Advisor was Barry W4LSV: "Thank you so much. Everything looks good on the certificate! I had a fantastic time with the course. You are an excellent, endlessly patient teacher. The CW community has been so welcoming to me that I'm thinking it's the best kept secret in modern amateur radio (a return to its roots). I'll highly recommend the CW Academy to everyone I know whose's interested in CW. CWops is a great organization to be offering such classes at no cost and I'd love to reach the level where someday I might be considered for membership into the club. I'm going to be signing up for level 2 ASAP."

New Members

Trung Nguyen W6TN

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

CWops	Call	Name
2134	W9WR*	Dunk
2135	KK6I*	Ron
2136	W2TR*	Gary
2137	IT9SSI*	Dario
2138	IT9BLB	Joe
2139	G3WCY	Brian
2140	W7RF*	Dan
2141	W5NE*	Alex

CWops	Call	Name
2142	F5VJC	Deni
2143	W8XC*	Win
2144	VE2SRP*	Simon
2145	AK4AO*	Doug
2146	K8RJW*	Bob
2147	NC3Y	Tom
2148	ND9G*	Mike
2149	NV5F*	Ginnie

CWops	Call	Name
2150	WK5N*	John
2151	IZ2FME	Mik
2152	NU6N*	Arkady
2153	N5ZC*	Rich
2154	NA5C*	Steve
2155	WC6Y*	Ken
2156	IZ0KBW*	Luigi
2157	K6ZD*	Dave

*Life Member

Current Nominees

As of November 8, 2018

Need Sponsors: SM6JWR, G0AYD, AD0WE, WB7DND, K7HBN, G3UFO

Invitations Extended: KH6CJJ, NY2H

For more details about nominees and up-to-date status, check the "Membership" then "Members only" [page on the website](#). For information about joining CWops, [check the "Membership" 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 membership@cwops.org so I can add it to the roster. Vice versa, if your callsign becomes inactive I can remove it, too. Then the roster will be accurate and current for our usage. Thank you.

73,

Trung, W6TN, Membership Secretary



CWops Member Awards

Pete W1RM and Peter W1UU

The Annual Competition Award (ACA) is based on the number of members worked each calendar year. You get one point per member worked, once per year. It resets to zero at the beginning of each year. The Cumulative Member Award (CMA) is based on how many members you've worked since January 3, 2010 on each band and continues to grow in perpetuity. The CWops Award Manager (CAM) software, available at no cost, will help you keep track of your ACA and CMA totals.

In the table below, members whose call sign is in **RED** have achieved a milestone: 100 DX entities, 40 WAE entities, 50 states (WAS). Members who wish to track their totals for these awards can use the CAM software developed by N5RR. It's available at no cost here: www.bbcyber.com/cam/

Call	ACA	CMA	Call	DX Total	Call	WAS	Call	WAE	Call	WAZ
AA3B	1050	7538	W1RM	186	N5RR	50	W1RM	49	W1RM	38
W1RM	888	5474	F6HKA	169	W1RM	50	DL6KVA	48	F6HKA	38
VE3KI	843	4797	W4VQ	149	W4VQ	50	F6HKA	47	W4VQ	37
N8BJQ	824	5128	G4BUE	131	F6HKA	50	G4BUE	46	N5RR	37
F6HKA	818	5024	N5RR	129	W1UU	50	OK1RR	44	G4BUE	37
IT9VDQ	798	1505	DL6KVA	129	VE3KI	50	N5RR	44	VE3KI	36
N5PHT	779	3150	N8BJQ	120	G4BUE	50	N8BJQ	43	N5PHT	36
K3DMG	718	1773	VE3KI	115	EA8OM	50	W4VQ	42	DL6KVA	34
K5AX	659	3395	OK1RR	115	W0EJ	50	VE3KI	42	I5EFO	33
DL6KVA	645	2654	OH2BN	112	F6JOE	50	I5EFO	42	VK7CW	32
K8AJS	645	2098	EA8OM	111	W6KY	50	EA8OM	42	IK0YVV	32
K0MP	631	1124	K1ESE	106	N1EN	50	AA3B	42	F5IYJ	31
WN7S	625	1178	AA3B	103	N5PHT	50	OH2BN	40	RM2D	29
K4WW	614	1094	I5EFO	102	F5MNK	50	W1UU	38	JF2IWL	25
K3MD	594	1734	N5PHT	98	K5IX	50	K1ESE	38	N1DC	22
NA6O	587	2577	EA1WX	97	K3SEN	50	SM6CNN	37	W6NS	19
K3WJV	523	2327	W9ILY	95	AD1C	50	KR3E	37	G4NVR	19
K1DJ	507	1440	W0VX	94	AB7MP	50	K3MD	37	G4ILW	17
NN4K	505	1837	SM6CNN	93	AA3B	50	IT9VDQ	36	WN7S	16
KM4FO	500	721	IT9MUO	87	K5AX	50	IT9MUO	36	K8AJS	12
K9WX	483	2731	N1EN	86	I5EFO	50	F6JOE	36	NN4K	9
N5RR	482	4961	KY7M	86	VK7CW	50	EA1WX	36		
AA8TA	478	1251	VK7CW	84	DL6KVA	50	W9ILY	34		
K1ESE	456	3264	F6JOE	84	K0TC	50	W0VX	34		
KE4S	429	1722	AD1C	83	KY7M	50	RM2D	34		
W0VX	411	3219	KR3E	82	NA6O	50	KZ5D	34		
WT2P	381	1925	4X6GP	82	K1DJ	50	HB9ARF	33		
VE1OP	372	493	PA7RA	79	N8BJQ	50	G4ILW	33		

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Call	ACA	CMA	Call	DX Total	Call	WAS	Call	WAE	Call	WAZ
CM8NMN	360	529	K5AX	79	K9WX	50	N1EN	32		
N1DC	357	2131	F5IYJ	79	WT2P	50	KY7M	32		
KT5V	355	1701	DL8PG	79	K1ESE	50	F5MNK	32		
HB9ARF	338	1150	KZ5D	78	K6DGW	50	4X6GP	32		
F6JOE	320	2900	IT9VDQ	74	K3WJV	50	PA7RA	31		
K3SEN	318	1532	W1UU	73	K4WW	50	K5AX	31		
W1UU	308	2203	RM2D	73	K2QB	50	F5IYJ	31		
VK7CW	299	1558	N1ZX	70	WN7S	49	DL8PG	31		
KE4RG	290	716	F5MNK	68	W9ILY	49	IK0YVV	30		
I5EFO	287	943	NN6T	67	W0VX	49	NN6T	29		
K6DGW	284	1939	GW0ETF	67	NU7Y	49	G4NVR	29		
K2QB	284	125	N1DC	66	NN4K	49	G4HZV	29		
G4NVR	281	630	NA6O	65	N1DC	49	N1ZX	28		
W9ILY	267	3239	DL4FDM	65	KT5V	49	K8AJS	28		
W4VQ	261	2710	KE4S	63	KR3E	49	GW0ETF	28		
NU7Y	255	920	K3DMG	63	KE4S	49	AD1C	28		
KB4DE	254	311	KT5V	60	K8AJS	49	N1DC	27		
AB7MP	247	923	K8AJS	58	K6RB	49	KE4S	27		
W8DN	233	501	K1DJ	58	K3MD	49	K1DJ	27		
G4ILW	223	535	IK0YVV	57	K0MP	49	G4DRS	27		
G4BUE	213	3472	HB9ARF	57	IT9VDQ	49	K3DMG	26		
G4HZV	213	589	W6KY	56	GW0ETF	49	JF2IWL	26		
4X6GP	197	1306	K6RB	56	AA8TA	49	G0MGM	26		
F5IYJ	197	739	G4DRS	56	WB9G	48	VK7CW	25		
AJ1DM	172	201	K0TC	53	W6NS	48	NA6O	25		
G4DRS	158	692	K9WX	52	SM6CNN	48	N5PHT	25		
RM2D	152	1182	JF2IWL	51	NN6T	48	K3WJV	25		
EA1WX	129	1886	K3WJV	50	N1ZX	48	DL5DBY	25		
IT9MUO	116	1702	G4ILW	50	KZ5D	48	K6RB	24		
KB8PGW	112	166	G4HZV	50	K3DMG	48	4Z1UF	21		
G0MGM	109	488	4Z1UF	50	IK0YVV	48	NN4K	20		
DL8PG	104	1789	NN4K	49	EA1WX	48	K9WX	20		
M0DHP	57	68	WT2P	48	DL8PG	48	K2ZC	20		
JF2IWL	28	931	WB9G	48	AD5A	48	WB9G	19		
K6RB	0	4032	K3SEN	46	4X6GP	48	KT5V	19		
KY7M	0	3252	G0MGM	45	VE3MV	47	K3SEN	19		
KZ5D	0	3239	DL5DBY	43	K0DTJ	47	WT2P	18		
IK0NOJ	0	3093	G4NVR	42	JF2IWL	47	W6KY	18		

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Call	ACA	CMA	Call	DX Total	Call	WAS	Call	WAE	Call	WAZ
EA8OM	0	2758	K3MD	41	G4DRS	47	VK4TJF	18		
SM6CNN	0	2477	K6DGW	39	WX7SJ	46	M0DHP	18		
AD1C	0	2101	W6NS	38	KG5U	46	K4WW	18		
W6KY	0	2088	K2ZC	37	IT9MUO	46	G3YJQ	18		
K0TC	0	2048	W0EJ	36	HB9ARF	46	AD5A	18		
N1EN	0	1928	VK4TJF	35	F5IYJ	46	KG5U	17		
N2UU	0	1774	KG5U	35	CM8NMN	46	K0TC	17		
OK1RR	0	1618	AD5A	35	OK1RR	45	VE1OP	16		
NN6T	0	1577	WN7S	34	KE4RG	45	WN7S	14		
KR3E	0	1461	KB8PGW	31	K2ZC	45	W6NS	12		
GW0ETF	0	1451	K0DTJ	30	W8DN	44	VE3MV	12		
KG5U	0	1322	K4WW	28	RM2D	44	K6DGW	12		
PA7RA	0	1200	G3YJQ	27	PA7RA	44	CM8NMN	12		
F5MNK	0	1111	CM8NMN	26	VK4TJF	43	W0EJ	10		
W6NS	0	1090	AA8TA	25	KM4FO	43	G3XLG	10		
AD5A	0	1071	VE1OP	24	G4NVR	43	K0MP	9		
4Z1UF	0	1032	K5IX	24	VE1OP	42	K5IX	8		
W5ASP	0	1018	VE3MV	23	OH2BN	42	AJ1DM	8		
PA4N	0	955	AB7MP	23	KB4DE	42	AA8TA	8		
N1ZX	0	940	NU7Y	22	G4HZV	41	W8DN	7		
K5IX	0	892	M0DHP	22	NV9X	38	W5TM	7		
WB9G	0	888	K0MP	22	G3YJQ	37	KE4RG	7		
K0DTJ	0	828	W8DN	21	4Z1UF	36	K0DTJ	7		
K2ZC	0	767	G3XLG	18	G0MGM	35	G0DJA	7		
IK0YVV	0	767	KE4RG	13	DL5DBY	33	AB7MP	7		
W0EJ	0	754	W5TM	11	AJ1DM	33	KM4FO	5		
VE3MV	0	664	KM4FO	10	W5TM	32	KB4DE	4		
DL4FDM	0	632	G0DJA	10	G3XLG	31	NU7Y	3		
WX7SJ	0	610	AJ1DM	10	G4ILW	27	ND1R	2		
OH2BN	0	530	KB4DE	8	ND1R	24	NV9X	1		
VK4TJF	0	430	ND1R	5	KE6K	17				
DL5DBY	0	326	NV9X	4	G0DJA	8				
W5TM	0	235	KE6K	4						
G3YJQ	0	234								
G3XLG	0	201								
NV9X	0	149								
KE6K	0	116								
ND1R	0	67								
G0DJA	0	23								
PA1FOX	0	5								



QTX Report

Enjoying the Art of Conversational CW

[Gary Stone N5PHT](#)

We are settled into Iowa and enjoying our new QTH. I have been able to be a bit more active during the month of October. I now have a G5RV up and a dipole for 30 so I was able to have some nice rag chews.

Update on the MQTX (mini-QTX). Although it may add to the record keeping the MQTX has been successful with over 1000 MQTX's reported so far!! We had 248 just in October. K5KV leads the pack with a total of over 200 MQTX! Glad to see the 10 to 19-minute rag chews are getting reported and counted.

If you have any questions about QTX or MQTX don't hesitate to ask N5PHT via email. If you want to be added to the QTX listings, please send in your count for QTX and for MQTX for the month from the Members Only Section of the Web Page. Please do consider sending in your points.

Rag Chewer Comments

WN7S: A good Rag Chew QSO is like exercising at the gym - afterwards, I feel better and have a positive outlook for the rest of the day. There are lots of great people out there waiting to share your experience.

F5IYJ: Longest QSO this month: 91min. I found an operator more talkative than me!

N6HCN: Thanks to regular K6YUF for enduring my first Qs with my bug, and wonderful chats with Tom, K6LQI operating from the San Pedro maritime museum as K6AA, and Bill, WA0MIF.

WB6TOU: Worked W6LFB in Texas and learned he was a co-founder of our local club in Lodi, CA in 1963.

N4PIR: Two hurricanes and a change of QTH has limited my operating time in October.

K6DGW: One of the 20+ Qs was a sked with one my Troopers from my combat team - 67 mins!

W0ITT: Not very active this month, I was building QRP radios instead of operating as much as I usually do. But I'm having great fun (and QTX/MQTX QSO's) using my 30-meter 2 watt "micro-station. 30 meters is a great band for rag chews!

KC0VKN: Had several good ragchews into EU at their sunset this month. Was really nice to have decent condx, KW and the beam also helped!

K5YQF: 67 min QTX with Bill, N5IR, #799 and 78 min QTX with Dave, N9JNQ. Another 6 over 40 min. Not a big total but all enjoyable.

W9EBE: I gave my paddles a bit of a rest and enjoyed using my Blue Racer 2000 bug more often

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this month. I had some very nice 2xBug QSOs as a result.

AJ1DM: I've been regularly QRS CQing for the benefit of my CWA level 2 students the last few weeks which has really bumped up my Mini QTX numbers this month. More QTX = more fun!

HB9CVQ: Two EU 34 wpm CW QSOs were done additionally under my German Call DK2VQ/m on 40. They lasted for about 60 min. This month I tested a vertical 0.9m diameter mag. loop about 35cm above the roof (Q=500) of my Audi A6. Practically no directivity detected on 40/30m. Performance only a few dB better than my ATAS 120 screwdriver ant (lossy, about -16dBd).

KB6BU: More mini-QTX than regular QTX this month. I really tried to keep some of those guys on the air longer, but just couldn't manage to do it.

MEDALS

Remember that we give out QTX Medals at the end of the year for 3 levels: (QTX – MQTX recognition not developed as yet).

Gold Medal – 400 QTX Points

Silver Medal – 300 QTX Points

Bronze Medal – 200 QTX Points

MEDALS for 2018: N5IR, K1ESE, W9EBE and N5PHT all have GOLD in the bag! K5KV, K2KRG and KC0VKN have earned SILVER. And Bronze: KB6NU, I5EFO and K5YQF. Congrats to the medal earners so far!!

The QTX is listed along side the MQTX for each member. I listed it in order of highest QTX and down. (Same arrangement in the 2018 totals).

QTX / MQTX TOTALS FOR OCTOBER 2018

Our leaders for the Month of October: N5PHT in first and N5IR is second and KC0VKN jumped up to third place for the month of October!

Call	QTX	MQTX	Call	QTX	MQTX	Call	QTX	MQTX	Call	QTX	MQTX
N5PHT	76	32	I5EFO	25	9	AJ1DM	9	4	WN7S	2	2
N5IR	48	0	K5YQF	20	7	HB9CVQ	8	12	K0DTJ	1	0
KC0VKN	47	0	W0ITT	20	27	K8UDH	6	1	SV2BBK	1	17
W9EBE	38	40	KB6NU	16	21	W3WHK	5	8	KG4Q	1	2
K1ESE	35	17	G4ILW	11	7	N9SE	5	2	N4PIR	0	2
K5KV	35	19	K4AHO	10	6	WB6TOU	4	2	VK7CW	0	1
K2KRG	33	15	N6HCN	10	3	K6DGW	2	7	AB7MP	0	1
F5IYJ	26	0	N4DT	9	0	DL5DBY	2	6			

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QTX / MQTX 2018 Totals

Call	QTX	MQTX
N5IR	606	0
K1ESE	439	57
N5PHT	429	103
W9EBE	411	106
K5KV	385	210
K2KRG	360	70
KC0VKN	358	0
I5EFO	212	40
KB6NU	255	58
K5YQF	201	43
N7YT	187	0

Call	QTX	MQTX
K4AHO	153	29
F5IYJ	152	5
W0ITT	147	135
K6HP	113	0
HB9CVQ	103	36
N6HCN	100	15
N4PIR	91	18
N4DT	84	9
K8UDH	73	7
G4ILW	61	17
AJ1DM	51	5

Call	QTX	MQTX
W3PNM	47	0
W3WHK	45	16
K6RB	43	0
K6DGW	34	36
N9SE	33	9
WA8IWK	32	19
DL5DBY	31	13
K0DTJ	30	0
WB6TOU	21	5
N5LB	16	64
SV2BBK	9	17

Call	QTX	MQTX
WA3AER	8	0
W5JQ	7	0
K3TN	7	0
VK7CW	6	3
G0MGM	6	2
KG4Q	4	2
WA3GM	3	2
WN7S	2	2
AB7MP	1	10
AI6O	1	8

And LEADERS for 2018 for far we have N5IR way out in front with 606 and second is K1ESE with 439 and N5PHT chasing him with 429 for third.

Hope to cu on the bands. NOTE: If you ever find me with missing reports, numbers or anything on this column please email me so I can get it corrected!

73,

Gary, N5PHT, QTX Manager

Upcoming CW Operating Events

[Joe Staples, W5ASP](#)

This list of operating events is intended to provide members with options for using and improving their CW skills in not only the more popular contests but also in other more casual on-the-air activities.

One of the two most significant CW events of the year, the CQWW CW contest, takes place on the last weekend of November. If you'd like a few ideas on some of the different ways to play in this event, go to the CWOps website and look at this column in the November 2014 issue. It has some suggestions that might amuse you, if you choose not to go full out.

Two of the best ARRL sponsored single band contests are scheduled for the first part of December. The 160 Meter event has long been a favorite of the "top band gang" and is a real test of both the station and the prevailing propagation.

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The Ten Meter contest can either be a "hoot" or a dud. With the sunspot cycle now pretty much "over-the-hill", this year will continue the long-term downswing in high band conditions. Check with the propagation gurus, and then offer up some prayers to the gods of the ether to entice activity from old Sol.

One thing to keep in mind about the 10 m affair is that even in the absence of decent propagation, the onset of Sporadic-E can bring about wonders. Dozens of stations have worked on a "dead" band by swinging the beam and calling ... and calling ... and calling again through 360 deg. Take the Qs any way you can get 'em.

The ARRL Rookie Roundup, CW is a great opportunity for the more experienced operator to encourage both the newer and the younger players to take part in contesting style events. Consider opening your station up to a rookie and then later gather up several of the younger set for some on-the-air time. And remember, the more operators who are on the air, the more fun there will be for everyone.

For those with a limited time there's quite a variety of "sprints" coming up in the weeks ahead. Together with the CWTs they provide good sessions of CW between the major events that will keep the skills honed.

Till next time ... Keep on pounding.

NOVEMBER / DECEMBER EVENTS

CQ Worldwide DX Contest, CW http://www.cqww.com/rules.htm	0000Z, Nov 24 th to 2400Z, Nov 25 th
ARRL 160-Meter Contest http://www.arrl.org/160-meter	2200Z, Nov 30 th to 1600Z, Dec 2 nd
ARRL 10-Meter Contest http://www.arrl.org/10-meter	0000Z, Dec 8 th to 2400Z, Dec 9 th
ARRL Rookie Roundup, CW http://www.arrl.org/rookie-roundup	1800Z-2359Z, Dec 16 th
NCCC Sprint	0230Z-0300Z, Nov 9 th
NCCC Sprint	0230Z-0300Z, Nov 16 th
NCCC Sprint	0230Z-0300Z, Nov 23 rd
NCCC Sprint	0230Z-0300Z, Nov 30 th
NCCC Sprint	0230Z-0300Z, Dec 7 th
NCCC Sprint http://www.ncccsprint.com/rules.html	0230Z-0300Z, Dec 14 th
SKCC Weekend Sprintathon	1200Z, Nov 10 th to 2400Z, Nov 11 th
SKCC Sprint	0000Z-0200Z, Nov 28 th
SKCC Weekend Sprintathon http://www.skccgroup.com/operating_activities/weekday_sprint/	1200Z, Dec 8 to 2400Z, Dec 9 th

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NAQCC CW Sprint
NAQCC CW Sprint
NAQCC CW Sprint
<http://naqcc.info/sprint/sprint201808.html>

0130Z-0330Z, Nov 22rd
0130Z-0330Z, Dec 12th
0130Z-0330Z, Dec 19th

Homebrew and Oldtime Equipment Party
<http://www.qrpcc.de/contestrules/hotr.html>

1300-1500Z, Nov 18th (40m) and
1500-1700Z, Nov 18th

73,

Joe, W5ASP, Upcoming CW Operating Events

My Story: New Member Biographies

Dario Piscitello IT9SSI

First, I want give a big thank you to my sponsors.

I was born in 1961, I work as a forensic biologist. My experience with ham radio began when I was very young. My uncle Peter (IT9QEK) offered me advice on how to become a Radio Amateur. I start as an SWL in 1975 and my SWL authorization was nr. 2000. I was a shortwave listener for several years, but then decided that I wanted to get my Amateur license. I studied at home with the help of books and also learned Morse code with the help of software in my PC. After passing both exams, I was issued the callsign IT9SSI in 1994.

My main interest in Amateur Radio has always been HF DXing, contests using SSB and CW and from 2015 data modes occasionally. I've been on several DXpeditions 5B/IT9SSI AS-004 - 5B/IT9SSI AS-120 - 8A3M OC250 (NEW ONE) - YB3ZES OC-021 - YB3ZES/P OC-237 - Z38/IT9SSI - T70DXC - 4U1ITU - 4U1VIC - HV5PUL and many others Italian Islands. I was a member of the R1MVE DXpedition in 2008, but unfortunately a letter was received from FSB (Federal Security Service of the Russian Federation) 22 May 2008 stating the operation from Malyj Vysotskij cannot take place. Therefore, the DXpedition has been cancelled. [More info here.](#)

I'm very happy to be a member of this great organization. I love CW.

Current equipment includes an old Kenwood TS 950 SDX, a Kenwood TS 50, an Elecraft K3. My antenna is Optibeam 11/3 (10-15-20) and inverted V for 40 and 80. There is also a Yaesu FT 736 r for VHF/UHF with a vertical antenna.



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Other interests include, stamp and coin collection, music and astronomy. So, hope I have not bored you and thanks for having me. I am looking forward to becoming more involved with the CWops organization.

Brian Smith G3WCY

Hello, my name is Brian and I am 81 years of age.

My interest in radio began at an early age after building my first radio, the infamous crystal set consisting of a coil and cat's whisker (germanium diode). Plus a long piece of wire for an antenna strung up a tree, and the thrill of hearing our local BBC radio station faintly coming through the headphones.

Then a few years later I bought an old shortwave radio, listening to all kinds of stations worldwide, and then finding amateur radio stations, which really sparked off a serious interest in the hobby.



When I was 18 years old, I joined the RAF as a radio operator and learned even more about radio, also gaining CW training with speeds up to 25wpm on a manual up and down key. One of my postings was to Aden (now Southern Yemen) where I was fully introduced to amateur radio by colleagues, who encouraged me to obtain a license from the then postmaster general. I was allocated the callsign of VS9AS (this was in 1958). As soon as I started operating, I quickly realised what a rare entity/country Aden was.

The equipment used at that time was an AR88 receiver, with a homebrew 150 watt CW AM transmitter, made up of discarded parts from old equipment, using a ground plane and dipole antennas. Oh, the pileups, what fun. More fun was to be had a year later, when being posted up country to a small island, off the coast of the Sultanate of Oman, where eventually I managed to get permission to operate, courtesy of the Sultan himself. I chose the callsign VS9OM. Initially the rig was a small homebrew 8-watt CW XTAL controlled transmitter, r1475 receiver, and vertical antenna. A few months later, an amateur from the USA donated a Globe Scout AM/CW 50-watt transmitter. Then VS9OM was really in business, wading through amazing pileups. What an introduction to amateur radio.

Upon leaving the RAF I got employment in the beginning of the electronics industry in the 1960's. After finally settling down, I sat the radio amateur's exam, and then the Morse test, and became the proud owner of the callsign G3WCY in 1967. Starting with again the old faithful AR88 receiver-

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er, and various homebrew transmitters, then on to commercial built transceivers, by Yaesu, my main operations are in CW, HF DX chasing and achieving various awards, such as WAS, WAZ and DXCC. Occasionally I operate SSB and data modes such as RTTY, BPSK, SSTV.

Now that I am retired, I still continue to enjoy the hobby again, mostly CW, my latest rig is the awesome ICOM 7610 SDR transceiver. For CW I use the Bencher paddle key, and also a Begali spark manual key, just to keep my hand in so to speak.

I am a member of the RSGB, also the FISTS Club.

I am proud to become a new member of the CWops club and I would like to thank the radio amateurs IT9MUO, AA3B, N3JT, 4X6GP and K2CVO for sponsoring me. I'm looking forward to meeting many more members on the air.

Bob Wright, K8RJW

Before I start, I would like to thank CWops for having me and to those who sponsored and supported me for membership. I only hope I can return the favor one day.

I was interested in things electronic at a very early age. I think the first thing I got was a 'wired' pair of Walkie Talkies (which later moved to a wire stretched from house to house for an intercom with a buddy). I know I went through many "electronic kits" that ranged from lighting a lightbulb to

ringing a bell, to making a code oscillator or even a crystal radio. As time went on a wireless bug hit when my dad brought home two CB radios in the very, very early days of CB... when a 108" whip was the only antenna for the car and a 108" ground-plane for the house... and no one even knew what it was.

I was first licensed as a Novice in May 1962 as WN8DUX at the ripe old age of 15. I became interested in ham radio through a High School buddy, Bill, WA8AGV (SK). Bill invited me to attend a Boardman High School Radio Club meeting one day (which I never had realized even existed) and as they say... "the rest is history." I'm not sure why but I decided to go through each of the licenses one at a time, so Novice to Extra took a little longer than for some. Ironically, I think it was CW that slowed the process because at each plateau, 5, 13, 20 wpm I thought I'd never make it... but did. And glad of it!

Sometime in 2013 I discovered QRP. The vast majority of the radios I had through the years were 100-watt rigs. I can't say that I ever came close to wanting a linear, but I can't say I ever thought

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about going to 5-watt rigs either! (Just the other day I had a great QSO at 400 mW to Oklahoma and I would have bet against that too!). I think I would put my Elecraft KX-3 against any of the rigs I've ever had on receive. And after WAS at least 3 times and DXCC on QRP it says a lot for transmit as well.

Along with QRP came setting up in area parks, lakes, and even just the back yard allowing enjoying the outdoors and ham radio at the same time. What could be any better? "More with less!"

Professionally I'm retired from Boardman Local Schools as the Supervisor of Technology/Information Management. This after a 20-year career with BANK ONE, NA, formerly know as The Union National Bank of Youngstown. I started there as a Loan Officer and left as Vice President of all the branches in our tri-county area.

How did I go from banking to schools? After taking on a computer project at the bank I got into computer programming and database management. When the State of Ohio started an Education Management Information System (EMIS) that tracked students, grades, courses, student movement between districts, it was a perfect fit for a second career.

Probably the greatest joy is my 50-year marriage to Sallie: she knits, I radio... and CW with ear-phones means she doesn't have to listen to all the noise that SSB brought on, and we both can enjoy our hobbies at the same time in the same room! We have three sons, their families and four fantastic grandchildren! Only one of our sons followed me into ham radio... WA8YLZ.

Mike Ricketts ND9G

I used to spend evenings in the cold dark corners of our basement, watching my dad operate his radio. It took some time before I learned CW and could somewhat follow what he was sending and receiving, but it came to me eventually. I learned it relatively easily but going fast enough to keep up with him took time. I still had lots of fun doing it. I hadn't quite taken an interest in radio at this point, but I still sat there and listened and watched. Around age 10 I finally started to take an actual interest, but not enough to get my license until the summer of 1988 at age 12. In July I passed my Novice test and was issued my first call of KB9BIB.



I spent quite a bit of time on the air, but as a 12-year-old kid, I quickly discovered that I had very little in common with people on the radio, and got very tired of talking about my radio and anten-

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na. This led me down a path to contesting. I immediately fell in love with it. I entered just about any contest I could. The only big one I didn't get in was Sweepstakes CW, as that was dad's contest.

In between contests I filled the time working DX, at the height of cycle 22, this was quite productive even in the Novice bands.

I upgraded to Technician and then quickly General to get more privileges for contests. I upgraded to Advanced class before becoming distracted in my later high school years. After moving away after school, I lived in an HOA neighborhood, so an antenna wasn't an option. I kept my license active the entire 23 years I was away from the hobby. I always wanted to get back into it.

When I returned to Illinois, I bought a single-family home without an HOA, but it still took a few years to get back into radio. I eventually did in the fall of 2016 and became extremely active once again. I completed the journey to Extra class, at which time I changed calls from KB9BIB to ND9G.

I still contest and DX, belonging to several clubs of those varieties (SMC, NIDXA), I am a life member of the ARRL, and do what I can to encourage hams to operate, regardless of their mode or station capabilities. I am an active member in my local general interest club (McHenry County Wireless Association), currently in the role of Vice President.

When I'm not operating or working, I spend time with my wife and young daughter, who has taken an interest in listening to CW pileups. Once she can start to spell words, I'll start teaching her CW, she's just turning 3, so we have lots of time.

Thank you to Joe KK5NA for nominating me and the additional sponsors who paved the way for me to join your ranks.

Winford Barnes W8XC

I am a USAF retiree after 20 years, worked for General Motors for 25 years and after my XYL retired in 2017 we moved here to McDonough, Ga in mid-2017 in order to escape our harmonics.

After basic training at Lackland AFB I attended technical school at Chanute AFB in Illinois, then off to Germany where I was assigned to the 496-fighter interceptor squadron. Our adjutant was Commander (captain at the time) Stafford, yep, the astronaut.

My next duty assignments were Mather AFB in California Torreon AFB in Madrid Spain and



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Fairchild AFB in Spokane Washington. While stationed at Fairchild I went on temporary duty to Okinawa and that is where I first encountered ham radio. Bob KR6QE was running "phone patches" for the boys overseas. Boy that looks fascinating, I thought, so on my return stateside I did some investigating into this interesting looking hobby. It wasn't long before I had a Knight Kit receiver and transmitter. I couldn't find an Elmer at the time but as luck would have it, I was transferred from Spokane, Washington to Loring AFB in Maine where I did meet Harry Leighton W1HUL who did become my Elmer. Being in Maine and a ham had its advantages as the ham population at that time was very sparse so working a Novice from Maine was like finding a gold nugget.

I was first licensed in 1971 as WN1OYY and upgraded from Novice to Conditional, WA1PHE, then transferred to Grissom AFB Indiana and had to upgrade from Conditional to General, so off to Chicago for the test where I became WB9KUQ. Then on to extra as AE9L and finally to my present call W8XC which has some interesting history. In 1929 Packard Electric had developed a diesel aircraft engine and the plane was equipped with radio apparatus that had the radio call sign W8XC.

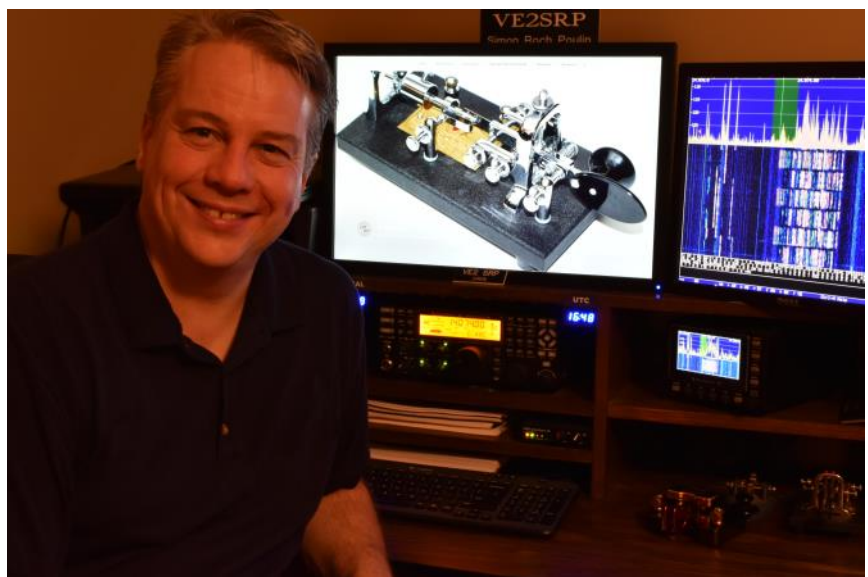
I am a member of OMISS, QCWA, Geratol, YLISSB, Firebird Amateur Radio Club, SKCC and DXCC with over 320 countries confirmed.

Running a modest station here the rig is an ICOM 775 DSP and also have a Kenwood TS-590SG. The antennas are a 6BTV and an OCF dipole 80 through 10 meters. I have a Microham USB II and the keys are bencher BY1, Kent straight and my favorite a Begali HST III. I have a TenTec Centurion amp but it is still in the box from our move here from Michigan.

I have completed levels 2 and 3 in CWops and became a CWops member in October 2018. Many thanks to Jerry, AC4BT for his encouragement and the many tools that he presented, all of which have been significant toward the continuation of Morse code learning.

Simon Poulin VE2SRP

Bonjour, it's an honor to be new CWops member #2144! I sincerely want to thank my advisors Ron VE3FXX and Jerry AC4BT for their time and dedication during my Level 2 and 3 CW Academy classes. The learning experience was excellent! As a CW newbie on the air waves, I also want to thank the very skilled CWops members that have been very supportive and welcoming during the weekly CWT contests. Listening to the more experienced operators is truly inspiring.



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As a boy, I was always interested in science, technology and electronics. The idea that radio messages could be sent across the world with just a piece a wire strung between the trees was simply magical. It still amazes me even after all these years!

I got my ham radio license in 1993. Shortly after, I focused my time on my electrical engineering career and marriage which forced ham radio activities to hibernate for several years. About seven years ago I got back into the hobby much more seriously.

I'm interested in wire antenna design and modeling, station building and optimizing, propagation testing, digital communications, casual contesting and Field Day. I always had a desire to learn CW and it now has become my main focus thanks to CWops! One of my next goals is to be more comfortable making regular rag chew CW QSOs which will hopefully help improve my overall operating skills. I also want to try SOTA activities next summer. This will allow my wife, dog and I to enjoy the great outdoors together!

I have a modest home station consisting of an Elecraft K3 and P3 Panadapter. My wife is very loving and supportive of ham radio, but she is not letting me put up that huge antenna/tower in the middle of her beautiful garden, ha ha. As a compromise, I'm still trying to convince her to accept putting a Hexbeam antenna on the roof, but hmm, I have much more convincing to do. I ended up installing a home brew ladder-line fed multi-band horizontal loop antenna up at about 25ft. I also have an Elecraft KX3 and an End-fed full wave multi-band antenna for portable QRP operations.

From 2016-2018 I was on the Board of Directors at our local ham radio club. During that time, I created our club's website www.crall.ca and organized both the 2017 and 2018 ARRL Field Day events.

I simply love the hobby and meeting great friends along the way. 73 À bientôt!

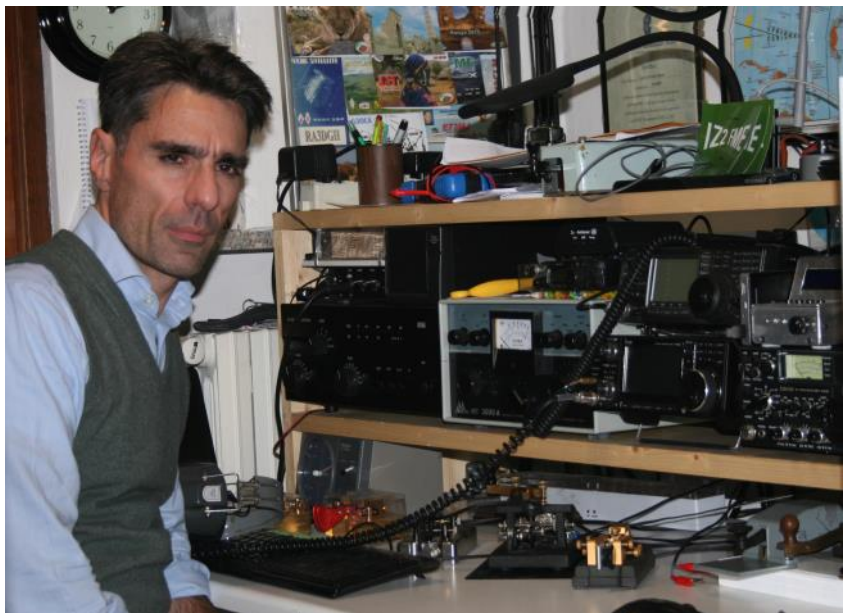
Michele Carlone IZ2FME

I work as a lawyer in Bergamo (northern Italy, not far from Milan).

I practice CW since 2003.

I belong to FISTS (#18103) and IN-ORC (#656). My other calls are: N2FME (ex KD7YNT - extra cl.) and MM0FME. I operated as I12FIST (#18180), for the FISTS 30 years Anniversary (1987-2017). I'm the QRS Italian resp. for FISTS Club - but like HST too.

Rigs: Icom IC-7300 / Icom IC-910H /



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Yaesu Ft-817D for portable QRP operations. Amp: Acom 1010. Ant.: Mosley 3 el. TM-33 (10 - 15 - 20), Windom (10 - 15 - 20 - 40 - 80 and WARC), HF3B vertical (40 - 80 - 160) and VHF / UHF log periodic.

Keys: Begali Intrepid, McElroy 1938B Standard, Vibroplex Deluxe series, Begali Sculpture SS, M.P. Pedersen 1920 pre - Amplidan, AMPLIDAN 50713, (heavy) Emilio Caimi, 1955 N.A.T.O. pump key, some Junkers, Begali postal and other Begali paddles, with a II WW keys little collection, too.

2 kids: Franz (7,5 yo) and Sten (2,5 yo) and a very patient wife (Anna, working as a medical doctor in Bergamo hospital).

There's also a very "noisy" dog named "Cane" ("Dog"), making ... QRM all the time.

QSL OK VIA BUREAU or DIRECT at my Italian address.

Dan Magro W7RF

I learned of Ham radio in early 1972 when my dad (who was a part time watch maker) took me to someone's shop to deliver a watch he fixed on a Saturday. The fellow (W9DGE - SK) took out a CPO and a straight key and started making noises! At 13 years old, I asked LOTS of questions!

Next day my dad took me to Allied Radio in Chicago and bought me an Archer code record. One week later I knew the code and took the exam with an old timer (Ed Trybus, he had a TV shop).

About 4 weeks after the written exam, I was issued WN9JFO and had a great time on CW as a Novice and then after my upgrade to General and Advanced as WB9JFO. First rig was a Knight T-60 (7158, 7172 XTLS) and a Gonset GR-211 RX to a 100 foot long-wire.

I didn't own a microphone for a long time and took to CW very easily. I joined RAMS (Radio Amateur Megacycle Society) in Chicago where I was fortunate to know and be Elmered by the person who "Elmer" was named after, Elmer "Bud" Frohart W9DY/W9GFF.

I have always worked in radio since my first job with Ero Erickson of Erickson's Electronics as a two-way technician. Never went to college but consumed everything I could find on radio and electronics.



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I started my own two-way shop (Portable Clinic) after my move to LA in late 1979 where I became KV6I.

In 1996 I was in the first "Extra Class" window for the new vanity callsign program and received W7RF (my 1st choice). Continuously active, Mostly CW and some SSB since 1972. Ragchewing, DXing, some contesting, Elmering for my club. Encouraging CW as valuable and most enjoyable mode especially for HOA sufferers who really want to make contacts with minimal antennas. I only operate "brain decode" modes, CW and some SSB.

Today I own and operate a few radio related operations, Hamgadgets.com where we design and make accessories for Hams like CW keyers, repeater controllers, etc. We also still have some two-way radio business and do BIRD wattmeter calibration and repair.

I love making things for my fellow Hams, half of our designs are from requests "Dan, can you make me....".

Experimenting with antennas is a passion and after our move to Fort Collins, CO in 2007, I now have land to spread out and build antenna projects. My easiest to draw on paper but hardest to build and maintain is the 1100-foot loop. I put up on four 70-foot utility poles spaced 280 feet apart and fed with ladder line back to a true balanced tuner. It is an amazing performer everywhere (160-10M).

Also, a 165-foot inverted "L" (65 feet vertical) over a bed of 55 radials 90 feet long each out in my back field that I use on 160/80. Also built an elevated feed, full size vertical with separate elements for 40/30/20. These are my best all homebrew performers.

I just added a downstairs hamshack in my house (my main hamshack is a 1600 sq ft shop/shack next to the house) so I can get on the air for the CWT's more easily on those cold Winter early mornings in my PJ's!

I have a cable running from the main shack to the house with whatever antenna I have selected to send over that day (and a 120-foot-long ladder line fed dipole at 30 feet that is dedicated to just the downstairs shack for all bands). See the antennas on my QRZ page.

I have been president for clubs in LA (WARC) and after our move, here in Fort Collins (NCARC).

TNX to all those who welcomed me and especially Glen NN6T, my CWops nominator. I look forward to the longer ragchews with all the operators I work in the CWT's, it's amazing how many callsigns are known or familiar!