



December 2024

Editor: Kevan Nason, N4XL

Thank you to our group leadership:

President – Ed, K3DNE

Vice President - Dave, WN4AFP

Treasurer – Scott, KG9V

Secretary – Kevan, N4XL

Web Master – Frank, KG4IGC

SFCG Webpage: swampfoxcontestgroup.com

SFCG Annual Meeting

SFCG's annual meeting will be held on **Sunday, January 26'th at the Lizard's Thicket in Lexington SC at 2PM**. 2PM is the earliest weekend time they had available where they can *partially* guarantee that the banquet room will be available for a private event (apparently business is booming and they use that room as a regular dining room on weekends). Again, this year, I pushed and attempted to negotiate a firm 2PM availability but they can't guarantee that all previous customers will have finished and be out of the room by 2PM - last year we had to wait about 1/2 hour for the room to clear and be re-arranged for our meeting. There is a group that has the room reserved after us (at 4:30pm) so we'll have to be done and out no later than 4:25PM. I will attempt to keep the meeting moving at an appropriate pace! Please let me know ASAP if any member has any new business to be included for our meeting.

Spouse or a guest are welcome. If you know of a potential member please feel free to invite that person as a guest.

The Lizard's Thicket is located on US-1 between I-26 and I-20 west of I-26 in Lexington SC (see address and phone # below). There are many Lizard's Thickets in SC - I went to the wrong one in 2020 and was late to the meeting!

Lizard's Thicket
4616 Augusta Rd.
Lexington, SC
803-785-5560

In addition to the usual business meeting/elections, SFOTA award presentations, lunch/dinner (order off the menu and pay individually), there will be a presentation by Kevan N4XL pro use of the Contest On-line Scoreboard and using the Reverse Beacon Network (RBN) before and after a contest to help us.

Minutes will be posted on our website as soon as available.

Looking forward to seeing you there!

73,
Ed K3DNE
President, Swamp Fox Contest Group

Contest Tips:

| SFCG Member Tips | |
|---|-------------|
| Tip | From |
| Be sure to feed the dog and kiss the XYL for being tolerant of your hobby. | N4IQ |
| Off times are important in most contests. I schedule them and put off and on alarms in my iPhone. I recently forgot to put a NAQP on time alarm in my phone and I came back too early. I lost almost a half hour of operating time. No.... I did not look on the INFO screen when I came back. I should have. | N4IQ |
| The older I get, the more important ergonomics become. As someone has already mentioned, BIC is a key to a good score which means not skimping on the 'saddle'. Get one with arm rests. Have your elbow where you can swivel your arm on the rest and quickly reach your radios. Have your radios near eye level and nearby. Don't put the radio on a higher shelf even if it is mostly CAT controlled. | N4IQ |

| | |
|---|--------|
| Murphy is alive and well. Be ready when he strikes. Have your wires, cables, coax labeled. Know what Com Ports are assigned where and their functions. Know your sound card codec allocations. The more complicated your station (ie SO2R, multiple modes, remote switching) the more important this is. I have one large three ring binder dedicated just for this information. When Murphy appears, this is often the first place I look. Don't waste time trying to figure out com ports. | N4IQ |
| As for VHF+ contesting - it is a different entity. Much lower rates - ya sometimes, during dead band condx, gotta work for every QSO! Scheduling QSO's is allowed, the use of chat pages are allowed and used (ON4KST) and I think SLACK (?) to schedule QSO's. Moving stations to other bands is common on SSB/CW and doable on FT8 but a little clumsy. Just worked a station on groundwave on 6m? Move them to 2m, etc. Checking the SSB/CW portions of the bands periodically taking a break from digital should be done routinely - often at the top and bottom of the hour. Don't get discouraged with slow rates and QSO #'s. Set goals to add to WAS/VUCC awards and just like HF, keep BIC | K3DNE |
| VHF Contesting. Moving the antenna with narrower patterns than HF can make a huge difference - keep rocking the rotor to peak a signal that may be weak. Know the maidenhead grid square system - hear a station from EL98 - turn south (it's in FL) - I print and keep a copy of a grid square map handy. | K3DNE |
| Most of us use N1MM and see the advantages of its functionality. However, there are many contest loggers out there. For those who don't want to take the time to learn N1MM, N3FJP is an excellent contest logger which makes it easy to log contacts and submit/upload scores. | K3DNE |
| You don't have to have 1500 watts to play. I worked Hawaii, Kansas. and Ohio last weekend with <100 watts. I managed 13 contacts with Hawaii. (that was every station I heard). | KZ3P |
| You don't have to win the contest to enjoy it. Compete with operators near you with similar stations. (type of radio/type and height of antennas/etc) | KZ3P |
| Make sure to accurately log your QSOs. | WN4AFP |
| Read and reread the contest rules and practice with your logging program | W7WZ |
| I'll throw down the gauntlet -- the single most important skill in contesting is touch-typing. If you can't type quickly (w/o looking at the keyboard), you are at a disadvantage. My dad learned to touch-type when he was in his early 40s. Obviously you also want a keyboard that works well. | AA5JF |

- Andy AA5JF makes a very good point in his tip above about touch typing. I have often said similar things about the importance of touch typing. I find the ability to touch type is critical to my contesting efforts. But because I've watched several top 10 operators in action who stare at their keyboard while using one finger on each hand to type what they hear, I'll accept his gauntlet challenge and give my thoughts on what the most important skill in contesting is.

Andy said the most important skill in contesting is the ability to touch type. Skill is defined as “the ability to do something well.” I believe the biggest difference between those who consistently score highest and those who are always found in the middle of the pack isn’t their typing ability. It is focus. Winners have taught themselves to stay focused on the task. In contesting, that task is to accurately put as many stations in the log as possible within a given time frame. For example, they don’t get distracted by rule variations. Sometimes a particular contest means you need mults on all bands too, but that is just a modifier. In that case it means accurately putting as many stations in the log as possible within that time frame while balancing what bands those Q’s are made on to meet multiplier needs. It still boils down to making the most Q’s within a given time frame.

How do you get the most Q’s? By moving on to the next Q the instant you hear the other station say “Thanks”. By constantly turning the VFO to find that new station or by keeping the voice keyer consistently blasting out a CQ. By constantly critiquing yourself, both during and between contests -- and then using those critiques to improve your technique and strategy. By not letting your mind wander to the football game or surfing the internet during a contest. By not putting off necessary antenna or station maintenance just because you don’t feel like it.

I say the most important contest skill is a person’s ability to stay focused on the goal of attaining the highest scores they are capable of. Why do those one fingered non-touch typists score so highly? Because they stay focused on making Q’s. They have developed the mental bandwidth to handle multiple contesting tasks simultaneously. They can hold call and exchange information in their head and interrupt their slower one finger typing long enough to reach up and start another CQ or ask for a fill and then go right back to typing where they left off. They can process and retain what they hear in response to their CQ (or fill) at the same time they finish pecking the original call and exchange into their Entry Window.

Highlights From The Reflector:

- Several people have had trouble getting spots during contests. It usually turns out to be a bad filter setting in their logging program. That should be the first thing you think about when that happens. Whether or not you are an N1MM user there is some information about Cluster filters in the N1MM section below that you might find useful.
- Matt NU4E finally solved whatever was keeping him from seeing the SFCG club listing on the Contest Online Scoreboard during the CQWW CW. Ed K3DNE was appreciative when Matt put out the club was within 600K of our 2023 effort. Thanks Matt! It made a few of us spend a bit more BIC time to help out.

- If only... Dennis K2SX's CQWW CW rate on 15 meters dropped to only 50/hr. Several in our group think that is okay for their station. Then he wrote "Rate dropped on 15 M to about 150 per hour so moved to 20 and rate is back to 250-300 per hour." Now you understand why us normal people think "If only."
- Miracles do happen. Non CW op Ed K3DNE wrote "Considering it was a CW contest, that was fun! Never did I think I'd BIC long enough to get >1M points on CW. Great condx."
- After being absent Gil KS4YX joined in the fun too and pulled in 131 QRP Q's for the CQWW CW.
- President Ed K3DNE has been pushing 6 meters and lets us know when F2 openings are happening. I've got to get this 6 meter beam up before its too late.
- People had fun reminiscing about their first HF transmitter. Several were using crystal controlled rigs. You young whipper snappers don't know how good you have it now. Why, I'll bet a lot of those folks had to walk 5 miles uphill both ways to get to their shacks too!
- Ford KK4MRG asked advice about protecting his dipole from snapping due to tree movement.
- John W7WZ graciously acknowledged John K4FT whupped his butt during the ARRL 160 Contest. That was nice of you John. (Y'all can figure out which John I meant). It'd down to the log checking though. K4FT claimed 51,480 and W7WZ 50,256. Good showing guys!
- Fantastic conditions for the ARRL 10 meter contest had the SFCG reflector posts flying.
- John W7WZ had logger/computer problems that prevented him from enjoying the contest and possibly obtaining the best 10 meter score of his life. Sorry things didn't work well for you John. I know we're at the sunspot peak, but remember that the cycle drops much slower than it rises. Who knows? Conditions next year might be even better than this year.
- Herschel KA2G posted he was surprised to win the 2024 Quebec QSO party. Good job Herschel! Let that be a lesson to all of you who think you don't have a chance. Herschel won with 7 Q's and 62 points. He now has a First Place certificate to go up on the wall.
- Ed K3DNE mentioned WA7BNM is accepting donations for his score reporting website. Most of us submit to it and look at our scores there. Even if you don't, by reading the entirety of this newsletter you will see results from his website at the end. Please consider contributing.

X-QSO and ARRL Contests

By Kevan N4XL

X-QSO is used to when you do not want to claim a QSO took place in your log. An example of when you might do so happens when you aren't sure if you successfully completed a contact or not. What? Why wouldn't you know? Say you answered a CQ. You easily copied the Runners exchange, but they asked you to repeat yours. After three tries, without giving any indication they finally copied your exchange (like saying "Thanks" or "Not in log"), they simply launched into another CQ. You're left wondering if they copied you or just gave up. If you log the contact but they had given up without logging you, then during log checking you will be penalized for not being in their log. But if you simply move on without logging them and they had copied your information and logged you then they won't be in your log and they will be penalized. To avoid their penalty you can mark the contact "X-QSO" in your Cabrillo file. That means you did pass your information to the other station but you aren't claiming it because you aren't sure they copied it. By not claiming the contact both stations avoid a penalty. The log checking software notes the designation and either gives the other station credit for the contact or it will not penalize you because you aren't in their log. X-QSO is so widely accepted that the N1MM developers added a method to quickly mark a contact during a contest as X-QSO. There is no longer a need to make a paper note and then manually edit your Cabrillo file before submission.

Andy AA5JF recently discovered a problem with using X-QSO that I had not heard of before. He received this response from the contest Log Checker after submitting his ARRL 160 meter contest log which contained a contact marked X-QSO:

Thank you for your participation and log submission in the recent ARRL 160 CW contest.

I see you have one QSOs marked as "X-QSO".

While I understand this is something the CQ Contests use - this is not defined in the general Cabrillo specification or for the ARRL 160 contest.

Can you explain what your intent is for these QSOs?

In the future - for ARRL contests - either the QSO took place - or not. If not, then simply do not include it in the log. As it is now, these QSOs are being ignored and will not count for either station.

Thanks and 73

Tree N6TR (Log Checker for ARRL 160 contest)

Tree says a log line beginning with X-QSO doesn't count for anyone. Okay. But carry that a bit further. The log submitting process ignores your line with X-QSO and doesn't load it into the contest's database. You aren't penalized for that line when a log match check is done because the line never made it to the database to be checked. The other person uploaded their log with you in it. No log match is found during their check because it was removed from your log. They get a NIL penalty. I'm okay with that. Why? Because it is the same thing that would happen before X-QSO ever came about. You aren't sure the QSO was completed so you didn't log it. People do that all the time.

Just be aware you can be a good guy/girl in CQ contests and use X-QSO to help them out. Some of you won't bother with X-QSO anymore. I will, because it is easy to do in N1MM and I prefer to do what I can to help people who didn't do anything wrong – even my competition.

Observations by the Editor:

- The spotting cluster VE7CC has for years been the "goto" cluster. I've long known that the many CC Clusters all get the same spot input so report the same spots. It doesn't matter if you log into VE7CC or any other. That's a good thing since VE7CC has become overloaded with people logging into it. I, like others, have tried other clusters and been disappointed though. I keep going back to VE7CC because those others don't seem to work as well as the "goto" one. Mike W0MU runs one of those "other" CC clusters and said this on the CC-User reflector:

All CC clusters use the same commands. You would need to setup the filters on each cluster you join. That information is not shared between us. I suggest using CC User to do this.

Guess I now know why those other clusters don't work as well as VE7CC. I'll log onto a few of them, hopefully before my next contest, and set up filters in each so I can quickly change clusters should one stop working in the heat of battle.

If you weren't aware, CC User is a free downloadable program that lets you fine tune what spots reach your logging program. It applies spot filtering at the server (VE7CC, W0MU, and others) which reduces CPU loading on your station computer.

- This applies to other devices containing cloned FTDI chips, but I'm talking specifically here about my microHAM computer interfaces. They need the older FTDI drivers to work correctly because the new drivers won't work. I've no confirmed knowledge of why, but I suspect the reason is microHAM uses the cheaper cloned FTDI chips. The latest FTDI drivers are designed to combat the clones so devices containing those evil unauthorized chips will not work with the newer drivers. (Combatting clones sounds like something out of Star Wars.) Windows and other driver checking apps examine your computer for outdated drivers and automatically replaces old with

new. That sometimes results in your equipment suddenly stopping working. You have two solutions. Go back and replace the new driver with the old for those devices or buy new equipment. Joe W4TV answered a question on the microHAM reflector about a microHAM device not working. He said "A yellow ! with Windows 11 is typical when Windows decides to replace the FTDI driver installed by microHAM with a newer one." You can see those yellow exclamation points in Windows' Device Manager. I hadn't realized those cautionary error indicators could be caused by driver issues. Now I have another clue of what to look for to solve whatever issue Windows found.

N1MM+ Tips:

NOTE: Unless otherwise specified references to problems people are having, solutions, and tips come from the N1MMLoggerPlus Group.io reflector. A search there for items described should turn up the original posts and replies.

- Selected changes made since last newsletter. (NOTE: These often come from a user requesting a change or fix to a problem.)
 - Earlier updates involving key mapping broke how SO2R shortcut combination CTRL+Left/RightArrow returns focus to the sending window. It is fixed now.
 - When using the Spectrum Window a "Zoom Signals while Tuning" feature was added. It is optional and is not persistent, meaning you must turn it on/off for each contest. This only works with horizontal Spectrum Windows.
 - For users of StreamDeck a {Focus} macro was added to aid bringing the app to the front via a UDC message.
 - An experimental version was created to test SO2V operation.
 - When using the {END} macro in a function key, turn off PTT after the {END} macro in some circumstances.
 - Keymapping: Don't force focus to sending window when remapped Pipe ("\\") pressed (N6XI)
- I've said this before, but it still amazes me how many people do not check the N1MM user manual before posting a question on the N1MM reflector asking about basic operation. If you haven't done so, download the manual at <https://n1mmwp.hamdocs.com/mmfiles/n1mmplus-pdf/>. Open the file up with your favorite pdf file viewer and search for what you are interested in using keywords. What prompted this blurb was an op asking if there was a shortcut combination to jump to spots in the Band Map that he hasn't worked yet. Duh... If he would have searched the manual using the obvious keyword "shortcut" he would have found

what he was looking for – and perhaps dozens of other shortcuts that would have helped him improve his contesting efficiency.

- Speaking of the manual... When first learning N1MM I used a trick I had learned from my professional career. I would just browse through the user manual to see what was in there. Sometimes randomly, sometimes choosing things that caught my eye in the Table of Contents. I often discovered interesting things that helped me operate and troubleshoot complex equipment. That helped me learn N1MM well enough that I still look through its manual now and then. It both helps my own understanding of what is possible in N1MM that can help my own contesting efforts, and it helps me come up with ideas for what to put in this section of our newsletter.
- You shouldn't let N1MM install itself to your Windows Documents folder. Instead, tell it to install in or directly off the root C:\ drive. Many create a folder like C:\Ham\ and install their Ham programs there. Why? The Microsoft Windows program really, really, wants you to use OneDrive. OneDrive overrides programs that want to store data in your computer's Documents folder, and instead stores that data in the cloud. Not only does it do that, it creates a folder on your computer called Documents and as far as your computer is concerned whenever you tell some app to store a file in the Documents folder the file seamlessly flows to the cloud instead of being put on the local computer's Documents folder. Confusing? It was for me and many others who never heard of that before too. Many problems with N1MM happen because people let N1MM install in its default Documents path. Oops. That ends up actually being stored up on the cloud's Documents folder. Here's the problem with letting things be stored on the cloud. Inside N1MM's code the developers had to tell N1MM where information for their database and user files are kept so N1MM can access the data. By default, N1MM expects to find those files on your local Documents folder, NOT up on OneDrive. When Windows intercepts things and puts stuff up on OneDrive N1MM doesn't work right anymore. You can get program crashes and even suffer database corruption with a loss of logged contacts. Many Hams have either disabled or removed OneDrive from our system. A good explanation of how to do that, which also includes a link to a very good video, is at <https://steveshank.com/cgi-bin/article.pl?aid=1219>

By the way, N1MM isn't the only program that has a problem with expecting to find information on your local computer instead of up on the cloud.

- Spots not appearing in the Band Map or the Available Mult & Q (M&Q) window are a common occurrence. Dave WD6T wrote this in the N1MM reflector:

I'm on VE7CC; I have the filter set to SSB and CW (and all bands). I say SET/SKIMMER and it replies.

Yet, I only seem to see new spots (or at least, new CW skimmer spots) when I press SH/DX on the band map explicitly.

Any idea what I'm doing wrong?

That would lead you to think the Clusters he tried before weren't working correctly. There are a few different things you can check. Are your N1MM filters set correctly? I check two places in N1MM. There is a filter selection at the top of the M&Q window and another on a tab in the Telnet window. Settings left from your last contest can cause spots not to show up.

A third and just as likely problem is your filters are set incorrectly at the Cluster server. Until recently I didn't know each Cluster server (i.e.: VE7CC, W3LPL, NC7J, etc.) remembers settings you last used in that Cluster independently. So if you switch servers you also need to change your filter settings for the contest you are using this time around. What caught my attention in Dave' question above was his being able to receive spots if he ran the SH/DX command. That means the spots are there, but somehow being filtered. John K3CT's response to Dave's question has given me a new troubleshooting step when I'm trying to solve why spots aren't appearing in my spot list. It lets me know spots are there, they are just being filtered by something. John wrote:

The format of the SH/DX spots are different. The code deliberately bypasses the Telnet window filtering with this alternate formatting to debug user filtering issues.

The regular telnet spots are likely colored gray indicating that the spots are filtered out.

Select the Telnet window Bands & Modes tab verify that it is set to pass 10m CW & Phone spots. Then check the Filters tab for an error.

Finally make sure you selected a mixed mode contest in the contest setup dialog

Upcoming Contests:

See the WA7BNM webpages <https://www.contestcalendar.com/contestcal.html>

SFOTA Current Leaderboard:

Dec-17-2024

Current Leaderboard

2024 OVERALL STANDINGS

| | CALL | Contests | CW QSO'S | SSB QSO'S | DIGITAL QSO'S | RTTY QSO'S | TOTAL QSO'S |
|-----|--------|----------|----------|-----------|---------------|------------|-------------|
| 1) | N4IQ | 107 | 15836 | 2689 | 1846 | 4224 | 24595 |
| 2) | WB4HRL | 376 | 18962 | 1450 | 893 | 1588 | 22893 |
| 3) | KE4EA | 245 | 13860 | 949 | 8 | 3 | 14820 |
| 4) | WN4AFP | 105 | 10562 | 4208 | 0 | 0 | 14770 |
| 5) | K3DNE | 50 | 2440 | 7391 | 1116 | 0 | 10947 |
| 6) | KZ3P | 93 | 3151 | 4926 | 0 | 2038 | 10115 |
| 7) | NU4E | 8 | 2400 | 6001 | 59 | 0 | 8460 |
| 8) | K4QQG | 56 | 0 | 6741 | 771 | 668 | 8180 |
| 9) | K2SX | 26 | 6819 | 0 | 0 | 0 | 6819 |
| 10) | N4XL | 12 | 5428 | 1057 | 0 | 0 | 6485 |
| 11) | K4FT | 92 | 6315 | 166 | 0 | 0 | 6481 |
| 12) | KG4IGC | 23 | 997 | 1298 | 0 | 3314 | 5609 |
| 13) | KD4S | 73 | 2909 | 237 | 104 | 942 | 4192 |
| 14) | N1UZ | 19 | 578 | 0 | 1237 | 1948 | 3763 |
| 15) | KA2G | 39 | 0 | 3011 | 616 | 0 | 3627 |
| 16) | K7OM | 22 | 987 | 0 | 0 | 1920 | 2907 |
| 17) | NI7R | 10 | 2800 | 88 | 0 | 0 | 2888 |
| 18) | N4QI | 58 | 1836 | 531 | 0 | 427 | 2794 |
| 19) | AA5JF | 7 | 1745 | 806 | 14 | 0 | 2565 |
| 20) | AA4SD | 29 | 2351 | 0 | 0 | 0 | 2351 |
| 21) | KY4ID | 13 | 1185 | 62 | 0 | 377 | 1624 |
| 22) | N1SUZ | 28 | 0 | 1615 | 0 | 0 | 1615 |
| 23) | WA4LDU | 29 | 265 | 536 | 492 | 184 | 1477 |
| 24) | N4VZ | 13 | 0 | 433 | 595 | 326 | 1354 |
| 25) | W1RPG | 22 | 0 | 918 | 187 | 38 | 1143 |
| 26) | KS4YX | 7 | 460 | 0 | 13 | 565 | 1038 |
| 27) | WA2BCK | 4 | 0 | 300 | 604 | 0 | 904 |
| 28) | K4CU | 9 | 321 | 171 | 1 | 293 | 786 |
| 29) | N2OG | 7 | 253 | 294 | 0 | 0 | 547 |
| 30) | WB5NHL | 9 | 0 | 194 | 0 | 102 | 296 |
| 31) | KK4MRG | 2 | 0 | 171 | 0 | 0 | 171 |
| 32) | N4VGE | 1 | 0 | 167 | 0 | 0 | 167 |
| 33) | NE4EA | 1 | 50 | 0 | 0 | 0 | 50 |

3830 Activity:

| Contest | Call | Class | Pwr | Score |
|----------|--------|--------------------------|-------|---------|
| | Call | Class | Power | Score |
| ARRL 10 | | | | |
| 12/15/24 | AA4SD | SO CW | LP | 10,512 |
| 12/16/24 | K3DNE | SO SSB Unlimited | HP | 425,034 |
| 12/16/24 | K4FT | SO CW Limited-Ant | LP | 241,488 |
| 12/16/24 | K4QQG | SO SSB Unlimited Lim | HP | 89,452 |
| 12/17/24 | K7OM | SO CW | HP | 46,860 |
| 12/16/24 | KA2G | SO SSB Unlimited Lim | HP | 2,496 |
| 12/16/24 | KD4S | SO Mixed Unlimited L | HP | 83,460 |
| 12/16/24 | KE4EA | SO Mixed Unlimited L | LP | 44,116 |
| 12/16/24 | KG4IGC | SO Mixed | LP | 74,460 |
| 12/15/24 | KS4YX | SO CW Limited-Ant | QRP | 31,824 |
| 12/16/24 | KZ3P | SO Mixed Unlimited | HP | 124,672 |
| 12/16/24 | N1UZ | SO CW | HP | 14,432 |
| 12/15/24 | N4IQ | SO CW Limited-Ant | HP | 96,820 |
| 12/16/24 | NI7R | SO CW Limited-Ant | HP | 115,320 |
| 12/16/24 | W7WZ | SO Mixed | HP | 238,164 |
| 12/16/24 | WA4LDU | SO SSB Unlimited Lim | LP | 5,600 |
| 12/16/24 | WB4HRL | SO CW Unlimited | HP | 72,900 |
| 12/15/24 | WN4AFP | SO Mixed Unlimited L | LP | 188,760 |
| | | | | |
| ARRL 160 | | | | |
| 12/08/24 | AA4SD | Single Op | LP | 2,300 |
| 12/08/24 | K4FT | Single Op | LP | 51,480 |
| 12/08/24 | KD4S | SO Unlimited Limited | HP | 42,504 |
| 12/07/24 | N4IQ | Single Op Limited- An | HP | 48,312 |
| 12/08/24 | NI7R | Single Op Limited- An | HP | 8,120 |
| 12/08/24 | NN4SS | Single Op | HP | 24,940 |
| 12/08/24 | W7WZ | Single Op | HP | 50,256 |

| Contest | Call | Class | Pwr | Score |
|----------|--|--------------------------|-----|-----------|
| CQWW CW | | | | |
| 11/25/24 | AA4SD | SO(A)AB | LP | 120,582 |
| 11/25/24 | AA4VT | SO(A)AB | HP | 115,566 |
| 11/25/24 | K3DNE | SO(A)AB | HP | 1,289,760 |
| 11/25/24 | K7OM | SOAB | HP | 105,635 |
| 11/25/24 | KB1QU | SOAB | HP | 172,142 |
| 11/25/24 | KB4DX (WN4AFP,N4IQ,AA5JF, K4ZA,W4IX,W7WZ,@W7WZ) | M/M | HP | 9,873,216 |
| 11/25/24 | KD4S | SOAB | HP | 431,585 |
| 11/25/24 | KE4EA | SO(A)AB | LP | 343,216 |
| 11/25/24 | KG4IGC | SO(A)AB | LP | 156,650 |
| 11/25/24 | KS4YX | SOAB | QRP | 42,716 |
| 11/25/24 | KZ3P | SO(A)AB | HP | 176,320 |
| 11/25/24 | N1UZ | SOAB | HP | 50,716 |
| 11/25/24 | N4XL | SO(A)AB | LP | 1,642,698 |
| 11/25/24 | NI7R | SO(A)AB | HP | 461,418 |
| 11/25/24 | NN4SS | SOAB Classic | HP | 501,656 |
| 11/24/24 | NU4E | SO(A)AB | HP | 2,410,500 |
| 11/25/24 | W4GE | SO(A)AB | HP | 901,570 |
| 11/25/24 | WA4LDU | SO(A)AB | LP | 1,161 |
| 11/25/24 | WB4HRL | SO(A)AB | HP | 102,371 |
| 11/26/24 | WN4AFP | SO(A)AB | LP | 130 |
| | | | | |
| FTChlg | | | | |
| 12/08/24 | N1UZ | SO Unlimited | LP | 65,504 |
| 12/09/24 | N4IQ | SO Unlimited | LP | 106,182 |
| 12/09/24 | WB4HRL | SO Unlimited Classic | LP | 31,372 |
| | | | | |
| SS SSB | | | | |
| 11/18/24 | K3DNE | SO Unlimited | HP | 196,520 |
| 11/19/24 | K4QQG | Single Op Limited- An | HP | 119,686 |
| 11/18/24 | N4XL | Single Op | LP | 392 |
| 11/18/24 | W4ANT | Single Op | HP | 24,734 |
| 11/18/24 | WB4HRL | SO Unlimited | HP | 11,872 |
| 11/19/24 | WN4AFP | Single Op | LP | 19,220 |

=====
73 es QRT de N4XL