



TALES FROM THE SWAMP

August 2021

Editor: Kevan Nason, N4XL

Thank you to our current group leadership.

President – Ed, K3DNE

Vice President - Dave, WN4AFP

Treasurer – Phil, NI7R

Secretary – Ed, WB4HRL

From the Reflector:

- New SFCG member Burton, KY4ID, says “I’m definitely a jump right in kind of guy.” Welcome aboard! He did jump right into the NAQP RTTY and put Steve Ford, WB8IMY of ARRL fame, in the log. Good job, Burton.
- Writing about the same contest, Matt, NU4E, wrote “I was too tired for more activity. At the beginning it was no fun and I stopped at 100 QSOs to get more rest from that past work week.” Matt. Dude. Get your priorities straight. Fun before work is the way to go. Seriously though, thanks for getting on and contributing to the club score. Wish you had more free time.
- Matt, NU4E, is one of the most successful contesters in the group. Look for him to post even higher scores as his station here in the U.S. improves. His comments for the CQWW VHF were “Got my tower and a small rotator up since a few weeks and installed a little duoband yagi (6 elements on 2m and 10 elements on 70cm).” and “I operated with the FT991 + 150W into a 6 element yagi, about 60ft up on 2m and with the Flex 6600 with about 500W into the HyGain AV-640 on 6m.” For the NAQP CW he added “The 2 element is on the tower, still lots of work left but it works. Finally I can make myself heard a bit better on 20-10m.” Now all he has to do is figure out how to avoid cutting his coax feedlines with his lawnmower.

- Ed's admission and integrity are commendable. Six hours into the CQWW VHF contest he realized self-spotting was not allowed for that contest and decided to send submit his effort as a check log.
- Ed sent a link to a coax loss calculator. <https://kv5r.com/ham-radio/coax-loss-calculator/> . It could help you document your stations compliance with RF safety rules. You do have that documentation, don't you?
- Gary, AF7T, has taken over the WW4SF QSL records from Dave, NJ4F. Thank you Gary and Dave both for your managing that service. Gary asks that if you use the club call WW4SF that you send him both a copy of your log and .adi files to aid him. Keep in mind that Dave, NJ4F, is the custodian of the call sign WW4SF. Please obtain his permission before using it.
- Dave, WN4AFP, admitted he is a slacker. "I was out of town on vacation until 6 pm tonight. I missed a QP!!!! First miss in several years. No perfect attendance pin for me this year." Wow, Dave. You only missed one in several years? Your record is amazing.
- Results for the 2021 ARRL DX SSB contest came out. Kevan, N4XL, placed #1 US/VE in the Single Low Power, Unlimited category.
- Congratulations, Frank! KG4IGC was the top operator in the K2L of all 13 Colonies special event stations.
- N2OG posted a few times but has been relatively quiet. What's up with that, Scott?
- Bill, N4IQ, is tracking his improvement. His NAQP CW comments included "I made 154 multipliers which was 9 mults more than last August when I worked 10 hours and made 661 Qs. So felt good about the added mults. My average rate this year was 72 Qs/hr whereas 66 Qs/hr last year. So improvement in rate."
- Ted, K7OM, doesn't post much but he still contributes to the group scores. Thanks, Ted.
- Our President, Ed, K3DNE, asked the group if we were interested in sponsoring another plaque. He said we could discuss it on the reflector. There has not been ANY response to him. I've remained silent as I'm always chattering away and thought I'd let others take the lead. Anyone have an opinion about Ed's question?

Contest Tips:

| K2YWE Contesting Best Practices | |
|---|---|
| Best Practice | Rationale |
| When running: <ul style="list-style-type: none"> • Don't engage in extended frequency fights. • (When someone comes on your frequency) Try "QRL" or "frequency in Use, QSY." If that fails, it almost always pays to move. • Sometimes you can move up or down a bit in order to lessen the QRM and still hang on to "your" frequency. | <ul style="list-style-type: none"> • It costs you QSO time • You may be in QRM at the other end |

| K2YWE Contesting Best Practices | |
|--|--|
| Best Practice | Rationale |
| <ul style="list-style-type: none"> • If you can't drag a station's call through after trying TWICE, ignore him and start calling CQ again. • This is part of K3ZO's "Rule of TWICE." Modify TWICE to suit your station capabilities and contest circumstances. | <ul style="list-style-type: none"> • Running has to do with how fast you can accurately pull a call and get it into the log. You don't want your rate to slow down or waiting callers to lose interest. • Equally important, on a crowded band you must transmit often to keep "your" frequency clear. |
| <ul style="list-style-type: none"> • Call CQ when the bands are dead for the day or worked out near the end of the contest. | <ul style="list-style-type: none"> • That's when the stations that have been CQing will S&P for "fresh meat." . |
| <ul style="list-style-type: none"> • Use the widest receiver bandwidth you can stand. | <ul style="list-style-type: none"> • Less chance to miss off-frequency callers, especially on CW. |

K1AR Contest Tips

61 Have you taken a hard look at your station's layout lately? Comfort is a controllable factor in contest operating. If you have to see your chiropractor after every time you change the bands, you probably need to pay attention to this month's contest tip. Think "out of the box" when it comes to your station's physical design. Ask your fellow contesters what they're doing. You'll be surprised how a few small changes can impact your operating enjoyment - and score!

64 As I've been doing some recent maintenance work lately. I learned an old lesson yet again: label the cables. So much of success in contesting can be controlled by preparation that has nothing to do with the actual process of operating. Nothing is more frustrating than experiencing a malfunction during a contest and spending more time deciphering your cabling scheme than actually fixing the problem and getting back on the air. Remember, your contest score will only increase when you're transmitting and not debugging. Take the time to anticipate malfunctions by clearly labeling everything in your shack. You'll thank yourself later!

OK1RR Operating tips & Tricks

- Tune for lower pitch (CW)

Many operators tuning for a 800 Hz pitch which may correspond to default factory setting of many radios. After some years with headphones it may became uncomfortable regardless of the fact that the human ear is mostly sensitive on frequencies of 1 kHz.

Try some 500 Hz pitch. The noise peak caused by narrow filters may seem not so sharp, your ears may become tired not so quickly and, finally, you may feel some 'additional selectivity'. This fact is very easy to explain - if you listen to two signals, one of 1000 Hz pitch, second of 1100 Hz, there is a difference of 10 %. At 500 Hz the same 100 Hz difference represents twice - 20%. Ask your physician about relationship of the ear sensitivity vs. frequency.

Many of keen CW operators using a pitch of 400-500 Hz. Compare their receiving abilities to your (especially on low bands) and tune lower!

- Use AGC - fast or off

AGC generally decreases receiver sensitivity. It matches RX sensitivity to incoming signal level but the game is about the strongest signal coming through the IF filter - the receiver sensitivity is matched to any strong signal, regardless of its desirability. Any QRM decreases sensitivity and longer AGC time constant increases the time of inaudibility of the weak DX signal.

Article

Contest Controversies:

We had a reflector topic last month that touched briefly on cheating. Cheating is not all that prevalent in Ham Radio Contesting, but it is clearly happening.

https://en.wikipedia.org/wiki/Contesting_controversies is a website that describes some contest controversies, some of which illustrate how cheating is happening. The more knowledgeable the contest community is about how cheating is happening the more likely it is to be discovered or discouraged. Here are some highlights from the website.

Self-spotting

The most controversial use of the system is in self-spotting, where a competitive station sends a spot advertising its own operation on the air. Almost all contest sponsors explicitly prohibit this activity in their contest rules, so finding stations that self-spot in a blatant manner is uncommon. Most stations that engage in self-spotting do so by hiding or masquerading their identity as the source of the spot. Because of its easy accessibility and lack of user authentication, identifying such abuse on the packet cluster system is difficult, and may lead to false-positives. Enforcement in cases where self-spotting is suspected can be variable. Peer pressure remains the most effective means of curbing this undesirable behavior.

Cheerleading

Another controversial use of the packet cluster system is known as cheerleading. A cheerleader in this context is a station that uses the packet cluster system to spot one particular other

station for the purpose of promoting that station's contest operation and improving its score. Cheerleading is most evident when several cheerleaders promote a single station, such as when all the members of a contest club repeatedly and aggressively spot a single contest DX-pedition station operated by several members of their own club. Although the station being spotted is not itself abusing the rules of the contest, it may still benefit from the activity of its friends. Many feel that it is difficult to differentiate between undesirable cheerleading and the more normal spotting activity, and that coming up with well-defined rules to prohibit it would have significant negative side effects.

Club sanitizing logs

It is a common practice for members of large contest clubs to use specialized computer programs to analyze all members' contest logs so that "bad" contacts can be corrected or removed. A large club provides a good data base size and the use of other methods of "looking up" call signs can be used, such as archived records of stations on air activities, call book type data bases, and historic data. For example, if XW1UD is in twenty logs, and at the same times XW1VD appears in one or two logs, and archived records of DX activities show only XW1UD on the air, it is likely that XW1UD is the correct call sign and the log entries of XW1VD would be corrected to read XW1UD before submitting the logs to the contest sponsors. If XW nation had a call book or a national call sign list, that would be further aid in sanitizing the logs. In 2012 some efforts were initiated by some contest sponsors[who?], including CQ Amateur Radio magazine, to attempt to limit sanitizing logs by requiring the logs to be submitted only a few days after the end of the contest (likely requiring this sanitizing to be just done faster rather than eliminating the practice). Club members may be able to pressure contest sponsors to be liberal in scoring, and some members may also be on the sponsoring oversight committees.

Other tricks of contesting

A casual operator/member may be asked by his club to speak to and feed or direct rare stations to their flagship contest station frequency. This is a variation on "cheerleading." Another possibility will ask club members to contact the flagship club station and maybe five other stations at random (to qualify them as not "unique" calls) to beef up the flagship log with veiled "manufactured" contacts (in an extreme case, the contacting stations would not actually QSO the flagship on-air but simply send to that station the date and time of the "contact"). Too, if "unique" calls are allowed, a contester could seed his log with real call signs of stations known not to participate in that contest; thus increasing his score with stations he did not actually contact (particularly helpful would be to choose calls of rare locations). Because all contests occur within a limited time span, the more calls logged as contacted per unit of time promises a higher score.

Contest sponsors have attempted to inject some protections against these cheating practices via computerized log analytic programs and do exact a score reduction on a formulae subtracting infractions.

Captive rovers

In North American VHF radio contests, rover stations are those that travel from one Maidenhead grid locator to another. The rules of major VHF contests allow these stations to make two-way contacts with other stations from each unique grid locator in which they travel. Rover activity is responsible for contest operations from many grid locators that might otherwise not have any active contest stations.

A captive rover is a rover station whose contest operation is intended specifically or primarily for the benefit of another fixed station. A captive rover might travel to locations in several different grid locators and make two-way contacts only with one specific multi-operator station in the contest. That station benefits from the activity of the rover station, whereas its competition in the contest cannot receive the same potential benefit. A fixed station that is helped by multiple captive rovers can generate a very large score making two-way contacts with only a small set of rovers.

This kind of highly coordinated operation is very controversial, and several efforts have been made in contest rules to discourage it. Some argue that it is far too difficult to define exactly what conditions would merit disqualifying a station and its contacts as a captive rover station. Others openly acknowledge the activity, and argue that until the contest rules are capable of explicitly prohibiting it in a way that is fair and enforceable, that it should be allowed to continue.

Real-time schedules

Most contests prohibit the use of non-radio means to solicit contacts during the contest period. This does not prevent stations before a contest starts from making schedules (or skeds) with other stations to attempt two-way contacts during the contest. These schedules are often made for attempts at marginal propagation paths, or contacts over great distance, and are often made during the middle of the night when other contest activity is low.

Newer digital operational modes such as JT65 and FSK441 require accurate timing coordination between stations. While skeds for contacts made with these modes can be made before the contest, during non-contest times several web sites are used to make impromptu real-time skeds, and these web sites have been used during contests as well. As these advanced digital modes become more popular, the temptation to make real-time skeds with contest stations may remain powerful to some.

Contester's Code of Ethics:

From the World Wide Radio Operators Foundation (WWROF)

<https://wwrof.org/contester-code-of-ethics/>

- I will learn and obey the rules of any contest I enter, including the rules of my entry category
- I will obey the rules for amateur radio in my country.
- I will not modify my log after the contest by using additional data sources to correct callsign/exchange errors.
- I will accept the judging and scoring decisions of the contest sponsor as final.
- I will adhere to the [DX Code of Conduct](#) in my operating style.
- I will yield my frequency to any emergency communications activity.
- I will operate my transmitter with sufficient signal quality to minimize interference to others.

Additional comments on cheating.

Two other methods of cheating often discussed are excessive use of power and the use of remote receivers.

Remote Receivers

Whether he was telling the truth or not, I was present many years ago (before remote receivers were common) when an Israeli ham told a group of us that it was common for European stations to run several kilowatts and to use remote receivers to help hear weaker US stations through the heavy European QRM. He said this as we were setting up to begin a major worldwide contest. He then demonstrated to us how we could log into a remote European receiver and suggested we use it during the contest to help even the playing field. Thankfully, the station owner refused to do so. If he had accepted I and others would have left.

Since then, I have watched the proliferation of remote contest stations, and the inherent capability of using their remote receivers, with interest. I have described to the SFCG before an instance where I think I was beat by a station in Florida who I believe was using a remote receiver in the northern part of the country. We were neck and neck on the Real Time Scoreboard and I was closely watching his score. I heard him on the air while Search and Pouncing and put the second radio on him to listened for a bit while running on the first rig. I was surprised at some of the stations he was logging. Thought it unusual that propagation existed between them, but hey... it happens.

Then I tuned around and listened to two other Florida stations running people. They weren't logging anyone from those questionable areas. Looking up my competitor on QRZ.com and reading his 3830 score comments I learned he has two contest stations. One in Florida and another up north. He sometimes remotes into the northern one from Florida and contests from up there. Hard to say there wasn't some unique

propagation going on during that contest, but there he had several surprising sudden jumps in his reported number of qso's on the Real Time Scoreboard. His scores would be going up at the same rate as mine, then for some unknown reason he would suddenly post a 60 or 70 q jump. Maybe there is a perfectly acceptable explanation, like maybe he had a second radio in Florida controlled by a separate computer not talking with his running rig, but it left me wondering. If you've got an SO2R station using different computers it is fairly easy to, and desirable, let the two computers talk to each other and maintain a master log. You can keep track of dupes and needed mults that way. Why wouldn't he do that if the second radio was there with him in Florida? Although it can be done, it is a little harder to link a log from a remote station to your home station - and probably be traces of that in N1MM should an ADIF file be asked for. Combining those three observations makes me think there is a high probability a remote station was being used.

It's nice to be recognized as #1, but I contest mainly for myself. In his case I now simply discount his score anytime he is in the same contest as me. (As I write this though, I have decided that I will try to get an explanation of the jumps, or maybe exert a little peer pressure. If I see those sudden jumps again I'll shoot him an email and ask about them. See if he has an explanation. At the least it will let him know someone is watching - which doesn't seem to matter very much in these modern times where so many think that being the "winner" means more than how you win.

High Power

Likewise, there are often comments on the contest websites about running high power when entering the low power categories. Many also talk about the amazingly strong European stations that are always on during major contests. It happens here in the U.S. too. I was also told of two prominent southeastern US hams, one now a SK, that run several kilowatts in contests. During a visit to one of their stations I was told by another visiting ham not to expect to see his amplifiers. They are kept in a separate room from the control station. A room that remains locked to all, except for certain trusted guest operators. Sure enough, we had a complete and thorough tour of the station that took over an hour - except we didn't get to see inside one locked room adjacent to his operating station where he kept his amplifiers.

It has been suggested that with the proliferation of spectrum displays, skimmers, and the Reverse Beacon Network that perhaps monitoring stations could be used to determine excessive power abuse. A station in Puerto Rico suspected of using excessive power was mentioned during one discussion on the CQ-Contest reflector as an example of how that could be done. Unreasonably high RBN power readings were quoted. Although not technically proficient enough to join in on that talk, it did seem to me that might be a good a solution to catch cheaters. The naysayers clung tenaciously to the vagaries of propagation as the reason why you couldn't use those means.

This past IARU I was calling CQ on CW and watching the RBN. I only operate barefoot with 100 watts. I do not now, nor have I ever owned an HF amplifier. 45 years ago, I owned a Galaxy GT550 which did 250 watts, but other than that the max power out of any of my shacks has been 100 watts. Typically, my signal to the western US skimmer

stations results in RBN readings between 6 and 35 dB. At this time of the sunspot cycle I was pleasantly surprised to have a couple JA's return my CQ during the contest while beaming towards the Northwest US. Looking up at the RBN feed I noticed one skimmer up there had me at over 70 dB! And a skimmer in Japan had me in the high 20's. Perhaps those naysayers are right. It really is more difficult than most think to say someone is abusing a power limitation during their contest effort. Maybe long term statistical trending could be used, but a doubt that maybe things are really legitimate would remain in many minds. Including mine.

Both power and remote receiver violations are very difficult to catch. Deterrence pretty much must depend on promoting personal integrity and peer pressure. I've relieved myself of anger at cheaters by focusing on improving my own skills.

Observations by the Editor:

- More than once I've had the plastic tab of a RJ45 microphone connector break off letting the microphone cable freely slide in and out of the transceiver mic jack. Saw this somewhere a few years back and wrote it down just in case it happens again. Never used one, but it looks promising.

RJCLIP - Broken RJ45 Connector Solution



https://www.amazon.com/RJCLIP-Connector-Solution-Assorted-Colours/dp/B07YN2VCQB/ref=sr_1_3?dchild=1&keywords=rjclip&qid=1626860744&s=electronics&sr=1-3

- I've been fighting a long term battle with an intermittent trip of my automatic antenna selector system that has been temporarily disconnecting an antenna for about 10 seconds before reconnecting it. Thought perhaps a Windows driver for the software controlling the equipment might be the culprit. Went into Windows' Device Manager and told several dozen drivers to check for updates. Windows dutifully reported it had determined the best driver was already installed. Some of those drivers had date stamps five or more years old so I questioned that finding. Advertisements for Driver Update programs have been popping up, so I took a closer look at them. A program I have on my computer had recently added that as a feature, so I clicked on the button. Despite Windows saying all drivers were fine the program reported over 140 drivers needed updating. Doubting that too I went to the internet and tried a dedicated driver update program. It found over 170. The updaters compared the date of the driver on my system with the date of the latest driver from the manufacturers website. Apparently (surprise surprise) Windows isn't particularly good at keeping your system up to date.

I now have updated drivers. I still have the trip problem with my antenna switch, but it seems to be happening less frequently. Upgrading drivers was worthwhile despite still having problems because several other Windows annoyances have cleared up.

Make up your own mind as to the best one, but after reading several articles about it and looking at a few reviews I settled on Drive Booster 8 Pro from IObit. YMMV.

- The N1MM Audio Setup & Monitor Playback tab has an option to designate the playback path as being an Internal Radio Codec. Other than the obvious, (Duh... selects an internal radio codec, dummy!) I've never been sure what N1MM does differently if you check it.



Apparently, it will redirect the audio chain to the USB audio connection to your radio instead of any microphone connection you may have. That knowledge would have been useful a year or so ago when I couldn't figure out why my outboard SO2R box wasn't handling the .wav files from the computer. The following is a thread from the N1MM reflector. The thread started with Message number 62845. It is specifically about the IC7300, but it explains the concept of audio switching when that option is checked.

Problems with soundcard modes with IC-7300 and N1MM

I'm having trouble getting PSK with FLDIGI and RTTY with MMTTY working with N1MM. I realized that the SW is changing DATA MOD from USB to ACC on transmit. What could I have done in setup to cause this? Both programs work fine on a standalone basis.

Thanks in advance.

--

Mark - KF6YU

You left something out. Both programs in stand alone mode require the user to change a radio menu setting to use the radio codec.

My understanding is that FLDIGI and MMTTY do not operate in standalone mode when used with our software.

When configured to use the internal radio codec in digital mode, the modulator input is switched to USB before the transmission starts and returned to the default ACC setting when the transmission ends. This is the correct behavior and it works fine.

I realize that most other if not all other logging programs require the user to change the radio menu setting manually but this has been the standard program operation since 2009 when the first radio was released containing a radio codec (IC-7600).

If you uncheck "PTT via Radio Command Digital Mode" or uncheck "Internal Radio Codec" in Logger+ Audio Playback tab the radio codec will not be used and the modulator switching will not occur. The latter will also disable the recording on the fly of SSB voice files and playback.

John, K3CT

- Years back I wondered what it was that made top contesters different from us ordinary folk. What were they doing that let them beat me so badly? Was it their station? Were they cheating? What secret did they know that they weren't telling the rest of us? After looking at many things I came to the conclusion it's like everyday life. It's the difference between ordinary football players and great ones; or why there are so many people in a pack of race cars or bicycle riders, but the leaders are way out ahead of them. Maybe even a lap or two ahead.

While at a multi-multi I saw my contesting mentor, VE7ZO, simultaneously run stations on 40 meter CW at a rate >130 an hour, watch the telnet spot screen for interesting mults, keep track of how the 20 and 15 meter stations were doing via the shared log feed and send them encouragement via the computer interconnect, correct me when I logged a questionable call sign, and answer text messages on his phone. Some people are just driven to excel. (By way of explanation as to how great an operator Jim is he was on the winning team of the 2006 WRTC in Brazil.)

Searching for an answer led me to this saying from Bruce Lee: "If you always put limits on everything you do, physical or anything else, it will spread into your work and into your life. There are no limits. There are only plateaus, and you must not stay there, you must go beyond them."

Your attitude towards life in general sets the standard for how you approach contesting. Are you a clock watcher at work? Do you wait until the last minute to buy birthday gifts? Does your car's odometer read 1,200 miles past when an oil change was due? Is it annoying to do training at work? Bringing it closer to contesting, you will never be in the top ten nationally if...

- You "know" you won't
- You think you are doing good enough
- You blame never reaching the top on those dang cheaters
- You don't figure out what your weak points are improve them
- You think it is too much work to bury ground radials
- You figured out two years ago why people think take-off angles are important, but you haven't added any new antennas yet
- It is more important to watch a TV show rerun for the fifth time than it is to make sure your station is ready for the contest starting three days from now

Like life, contesting is easier and more satisfying if you work to avoid foreseeable problems, learn new things, learn from your mistakes. *Being a good tester is about attitude far more than it is about what kind of station you have.* This isn't an exact quote, but it captures the essence of a phrase I once read: "A Contester is someone who can take his station and beat yours, then take yours and beats his."

N1MM+ Tips:

Country List

N1MM checks the validity of call signs. It sometimes refuses to log a call if it thinks it is invalid. However, every now and then the call is actually legitimate. There are at least two ways to handle that situation.

The first is Ctrl+Alt+Enter. That is the keyboard shortcut used to log an invalid Q. The disadvantage of this method is if you work the same station on another band you again have to use Ctrl+Alt+Enter. Another way is to edit the Country list and let N1MM know it should treat the call as valid.

Adding a call to the country list is simple. First though, you should verify the call is actually valid and what DX entity should be credited to. That is often best performed prior to the contest, but you can do so during the contest too. Once the call is typed into the Entry Window and it is determined to be valid and you know the country prefix look under N1MM's "Tools" menu. Select the "Add call to country" option. You will then be asked to type in the DXCC prefix for the country the call belongs to.

For example, TO5A and TO5T are call signs assigned to Martinique. If TO5R was issued, but not yet added to the wl_cty.dat file you would put TO5R in the Entry Window, select Add call to country, and type in "FM" for the country to add it to. FM is the DXCC entity identifier for Martinique.

Bad Call History Files

Contests like the NAQP are notorious for having bad data in their Call History Files. People are always changing their name or QTH. If you aren't careful when you have N1MM set up to populate the exchange field with that wrong information you are setting yourself up for serious accuracy penalties. Here are two tips to handle that. Both methods can be accessed from the Tools menu.

One way is on a call by call basis. Make the q and log the correct exchanged information into the log. Select Tools>Update Call History with Current Log. I usually choose this method.

But if you grow tired of doing that over and over and are worried about letting some bad q's slip through you can use Tools>Clear Call History then Update With Current Log. You will then have kept exchange information for all q's made up to that point, but N1MM will no longer have access to old bad information and will force you to actually enter exchange information

for call signs not yet logged on any band. This method also lets you use the prefill exchange method during a contest but it will only be able to use data from call signs you yourself have copied the exchange information for. Hopefully, you trust yourself to have been accurate so it will help you with exchange information on other bands.

Upcoming Contests:

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

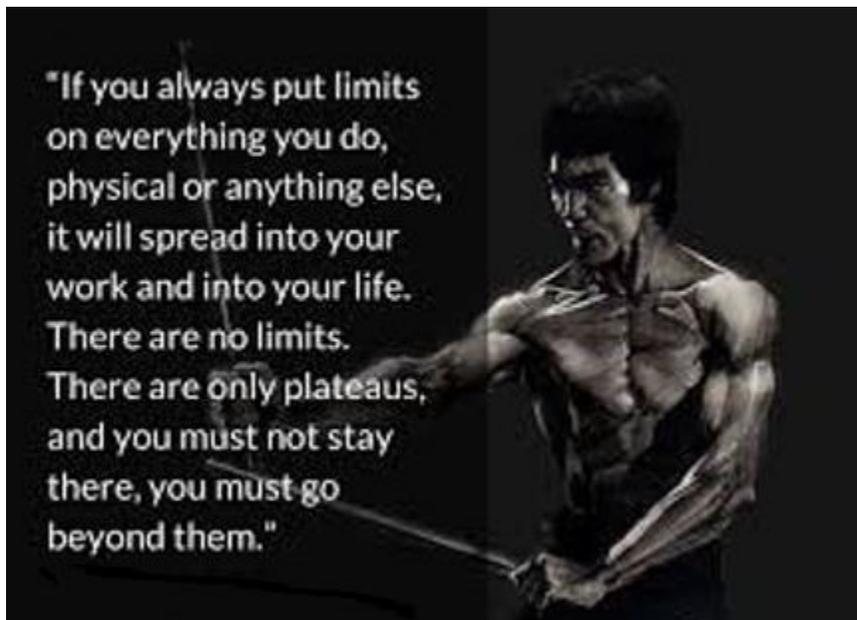
SFOTA Current Leaderboard:

| Aug-12-2021 | | | | | | |
|-------------------------------|-----------------|-----------------|------------------|----------------------|-------------------|--------------------|
| Current Leaderboard | | | | | | |
| 2021 OVERALL STANDINGS | | | | | | |
| CALL | Contests | CW QSO'S | SSB QSO'S | DIGITAL QSO'S | RTTY QSO'S | TOTAL QSO'S |
| 1) N4IQ | 80 | 10063 | 776 | 254 | 4305 | 15398 |
| 2) WB4HRL | 115 | 6450 | 1082 | 56 | 1758 | 9346 |
| 3) K3DNE | 35 | 1013 | 4765 | 161 | 824 | 6763 |
| 4) WN4AFP | 54 | 5415 | 1167 | 0 | 0 | 6582 |
| 5) AC4MC | 27 | 2489 | 1358 | 4 | 133 | 3984 |
| 6) K7OM | 23 | 1553 | 80 | 0 | 1975 | 3608 |
| 7) KG4IGC | 15 | 632 | 974 | 0 | 1746 | 3352 |
| 8) N4XL | 9 | 2059 | 1089 | 0 | 17 | 3165 |
| 9) NU4E | 5 | 1590 | 220 | 0 | 875 | 2685 |
| 10) K4QQG | 31 | 0 | 2507 | 0 | 0 | 2507 |
| 11) N2OG | 9 | 108 | 896 | 34 | 799 | 1837 |
| 12) WA2BCK | 4 | 1187 | 536 | 0 | 0 | 1723 |
| 13) KS4YX | 4 | 120 | 14 | 77 | 368 | 579 |
| 14) NI7R | 3 | 569 | 7 | 0 | 0 | 576 |
| 15) K9JDP | 3 | 0 | 208 | 0 | 74 | 282 |
| 16) AJ4UQ | 1 | 0 | 0 | 0 | 65 | 65 |
| 17) KY4ID | 1 | 0 | 0 | 0 | 59 | 59 |
| 18) NE4EA | 1 | 55 | 0 | 0 | 0 | 55 |
| 19) AF7T | 1 | 4 | 0 | 0 | 0 | 4 |

3830 Activity:

| Contest | Call | Class | Power | Score |
|-----------------|--------|-----------|-------|-------|
| CQWW VHF | | | | |
| 7/18/2021 22:58 | NU4E | SOAB | HP | 646 |
| IOTA | | | | |
| 7/25/2021 14:57 | K4QQG | SO12SSB | LP | 9,265 |
| KRC SST | | | | |
| 7/19/2021 1:03 | WN4AFP | Single Op | LP | 1,196 |
| 7/19/2021 1:06 | WN4AFP | Single Op | LP | 1,196 |

| Contest | Call | Class | Power | Score |
|-----------------|--------|-----------|-------|---------|
| MoQP | | | | |
| 8/2/2021 18:00 | AC4MC | SO Fixed | HP | 3,708 |
| 8/1/2021 14:46 | K4QQG | SO Fixed | LP | 144 |
| NAQP CW | | | | |
| 8/10/2021 17:15 | AC4MC | Single Op | LP | 12,410 |
| 8/8/2021 19:05 | K7OM | Single Op | LP | 10,220 |
| 8/8/2021 18:10 | N4IQ | Single Op | LP | 77,770 |
| 8/8/2021 4:42 | N4XL | Single Op | LP | 107,880 |
| 8/8/2021 5:37 | NU4E | Single Op | LP | 95,120 |
| 8/9/2021 23:46 | WB4HRL | Single Op | LP | 5,830 |
| 8/8/2021 15:35 | WN4AFP | Single Op | LP | 50,052 |
| NAQP RTTY | | | | |
| 7/18/2021 12:30 | AJ4UQ | Single Op | LP | 2,795 |
| 7/18/2021 15:27 | K7OM | Single Op | LP | 14,450 |
| 7/18/2021 13:05 | KG4IGC | Single Op | LP | 42,780 |
| 7/18/2021 13:13 | N4IQ | Single Op | LP | 23,205 |
| 7/18/2021 11:17 | NU4E | Single Op | LP | 13,824 |
| 7/18/2021 14:40 | WB4HRL | Single Op | LP | 21,600 |



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73 es QRT de N4XL