



October 2023

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](http://swampfoxcontestgroup.com)

### Contest Tips:

This month we have a few tips on from Dan Zeitlin K2YWE's great presentation "Contesting Tips for Little Pistols". All contesters, Little Pistol or not, should see it at least once. I find value in periodically reviewing it every now and then. Dan's willingness to share his 'smarts' has greatly influenced my contesting style. Those of you who have listened to my talks about improving contesting skills will recognize many of his concepts.

- "If you think and act like you're a big dog, you will convince most of the pack that you are, although you may get nipped once in a while." . . . de K2YWE  
*(Editor's Note: The opposite is true too. If you are timid while using a Big Dog station, or even a decent Little Pistol one, the Chihuahua's will chase you away. Acting like a Big Dog will help your rate both Running and when S&P even if you have a modest station.)*
- ". . . contesting skill includes the ability to tolerate high levels of QRM, and if you can't do that, you might as well hang it up." . . . de K3ZO
- Q's fuel the engine, Mults provide the turbo boost. Both are important. More Q's are key to producing higher scores. Operating Time is fixed thus Rate must go up! Running is part of rate generation.  
*(Editor's Note: It is fun and satisfying to chase Mults, but my scores went up after I changed my emphasis towards Rate rather than Mults. I usually find mults come naturally as you put more Q's in the log. An exception is if you are consistently close to being #1 in your category. Most of us don't have to worry about considering that problem when deciding when to chase mults though.)*

- Rate Goals
  - Set an average rate you want to achieve. Often varies by hour due to propagation.
  - Set minimum rates you'll accept.
  - Make a change if you drop below the rate or trend keeps moving down.
    - Change Freq, Band, Mode
    - Chase some Mults
    - Change your Shirt
    - Change Something!
  
- Software Features Most Useful to Me
  - Rate meter. Helps check performance against expectations.
  - Super Check Partial. Call fragments yield possible known contesters call signs.
  - Band Map. Saves time in S&P mode.
  - Available Mults & Q's. Aids in band change decisions. 'Point and shoot' listing of spots.  
*(Editor's Note: This window has mostly replaced the Band Map for me. ALT+A allows jumping from spot to spot.)*
  
- Best Practice excerpts:
  - Every point counts! There's no such thing as 'not worthwhile'. When it's really slow, call for 'anybody'.  
*(Editor's Note: I've adopted this for S&P too. Example: If I jump to a Mult spot and find the Mult has moved on and a non-Mult station now on freq calling CQ, I will work him before going back to Mult chasing. Every point counts – Rate! Rate! Rate!)*
  - 'Move Multipliers' if you can do so efficiently. Have frequencies on each band set up for quick jaunt.
  - Balance the effect on rate and total score when chasing Mults.
  - Verify the call sign of the station you're working. BV6U and 5C8N are not real call signs (6V6U and HC8N). Don't log them that way. Always HEAR the call the station is signing and log what you hear.
  - Use early S&P to find a spot to CQ. You can maintain a high rate while searching for a clear spot. It beats the alternative of establishing a frequency before the Test.
  - Insist on fills until you get all the info. Don't log the QSO without complete info. "Sorry, no QSO".
  - Always work Dupes. You might not be in his log and it's usually quickest.  
*(Editor's Note: People have told me their software doesn't allow dupes. Usually, the logging software has a check box that allows working dupes. Default is sometimes set to prevent working dupes. Change it.)*
  - NEVER NEVER NEVER acknowledge a 'jammer'. NEVER. Just keep your pace, and don't change your tone of voice on phone or even synchronize you calls to his QRM. Often throwing in a few fake Q's will discourage the jammer.  
*(Editor's Note: I glance at my open Log Window for a ready source of call signs to use for this.)*
  - If you can't drag a station's call through after trying TWICE, ignore him and start calling CQ again. Modify TWICE to suit your station capabilities and contest

circumstances. Running has to do with how fast you can accurately get Q's into the log. You don't want your rate to slow or waiting callers to lose interest. Equally important, on a crowded band you must transmit often to keep "your" frequency clear.

*(Editor's Note: Don't be angry if you are the S&P person and you get a CQ after the Runer tries twice to get your call or exchange info. Remember what their objective is.)*

## From the Reflector:

- Ed K3DNE made Scott N2OG, John K4FT, Dick KD4S, and Burton KY4ID happy by pointing out the ARRL Sweepstakes contest has adopted a new overlay category. New this year: "Any single operator entrant can enter using the Limited Antennas Overlay. Operation is limited to the use of single element antennas such as a single vertical, end-fed wire, or a single dipole antenna no more than 50 feet above ground at its highest point. The antennas may cover multiple bands, as in the case of multiband verticals and dipoles with fan or trap construction." Thanks, Ed. You're a good President who likes to have happy members.
- Bill N1UZ started a discussion about FT4/8 with some of his Pawley Island hams. He forwarded some thoughts he found on Facebook about people Mocking FT8.
- Matt NU4E posted about his trip to the Blue Ridge Parkway for the 2m Fall Sprint 2023. Several are interested in his adventures. Matt sent me an article about the outing which will be in next month's newsletter.
- Bill N1UZ had fun in the CQWW RTTY, but his amplifier quit working halfway through. Even so he managed 602 Q's for 431K in 22.75 hours. Good job, Bill! Hope the amp is back up and running soon Bill. The fall contest season is upon us.
- Matt NU4E's good showing in the CQWW RTTY prompted a comment from Bill N4IQ. Matt posted a claimed score of 1.25 million in 17.5 hours. He commented his 40 meter antenna died Saturday night and he quit Sunday to ride his motorcycle. Bill replied "It's a great weekend when you can play radio (and have a great score) plus ride your motorcycle in beautiful wx. Best of both worlds. Sorry about your 40m antenna. The higher bands had all the action, anyway."
- Chip KB1QU got some remote RTTY action in from Maine ending with 131K in a little over 5 hours. Good job Chip.
- Chip KB1QU discovered Hell, a Feld Hell contest. Bill N4IQ let everyone know about the Feld Hell Club and a couple SFCG members joined.
- George N4QI dabbled in one of my favorite QP's. I missed it this year, but George managed nearly 50 Q's with his modest antennas.
- Several of us are enjoying 10 meter openings. It's great to hear all the action.

- Ted K7OM and others enjoyed the Makrothen RTTY contest. Always a favorite of our group. Ted ended up with 199 Q's and 1.05 Meg. Good work, Ted.
- Dave WN4AFP is up to his magical antenna tricks again. He managed thirty-six 80 meter q's using a wire at 15 feet. He was also on 20 and 40 for a respectable Q total of 195 in 14 hours.
- Watch out for John K4FT! He ran three new runs of 9913 and put his 40 meter OCF dipole back up. He's also revamped his mobile operation by upgrading to a 33' RV and is installing antennas on it.

## The Burton Bandits

By Michael Burton

Do you like contesting? Do you have kids, and/or an XYL? Do you feel a constant tug of war between the two? Read on, I may have something for you.

First of all, credit where credit is due. Hats off to the NCJ for their outstanding lineup of contests. No, they're not paying me to say that. The exchange for the NAQP is simple, mults start over on each band which helps maximize activity, and the maximum operating time is right in the Goldilocks zone. Not too long, not too short, just right. Most folks put in the full 10 hours, which gives you some good, clean data for comparison/improvement at the end.

I joined Swamp Fox Contest Group in July of 2021, about a month after getting my ticket. It took me a while to figure out what I really enjoy, but now I'm 100% hooked. In August of that year, I joined a team for the North American QSO Party, SSB. Btw – I put up a whopper of a score in that one. My full-time effort netted 5,439 points. What can I say, I'm a natural. Ha! Anyway, a curious thing happened late in the contest. A noticeably young voice responded to my CQ with "Kilo X-Ray Four Alpha Victor." The amateur radio community is very gracious to YLs and young operators on the air. I wish I could say I mirrored that example, but I froze like a deer in the headlights instead. A tone of voice not commonly heard, combined with "Mark, Kentucky" really threw me for a loop. I bumbled my way through the QSO and made a note to email them afterwards.

What Mark Russell, KX4AV, told me was super neat. Mark, his wife, and his daughter make a family event out of the NAQP. They grab some snacks, take turns on the radio, and try to beat their score from last time. That story stuck with me and is the inspiration for what follows.

In early August, I started talking up the NAQP SSB to the family. I got some buy in, but I had a problem. I've gotten most of the family on the air at one point or another, either by hunting POTA or DX stations, but the novelty wears off fast. 5-10 QSOs and they're off to do something else. I wanted to keep the party going as long as possible, and said so out loud but got quickly rebuffed, "This is supposed to be for fun! No pressure!" Eventually, I had an epiphany. What if each person (dad excluded) competed for mults and Qs, and a winner is declared at the end? That was the secret sauce I needed. I presented the idea and the trash talk started immediately.



Game day arrived and my wife, Geneva, had gone all out on prep and logistics. Snacks, drinks, lunch, dinner, you name it. She even had a puzzle station setup so those on a break wouldn't get bored (or make noise) while waiting their turn. I created a couple of scripts in PowerPoint with exchanges and common terminology, and printed those off to keep at the radio. I still wasn't sure they were going to stick with it long, but I was hopeful.

2pm EDT hit and we were off to the races. I got us started with a little S&P, then turned the mic over to Geneva. She spent a good hour on the radio, and her confidence increased quickly. If I had a

dollar for every time I heard, "Did you mark that one down? Did you get the multiplier?" I could buy a new FT-101MP. Our strategy was simple; use YL voices for S&P, and I'd run occasionally to build up volume. Man, do those YL voices slice through pileups like a hot knife through butter. Holy cow. They got through most on the first try, and some were 5-10 callers deep.



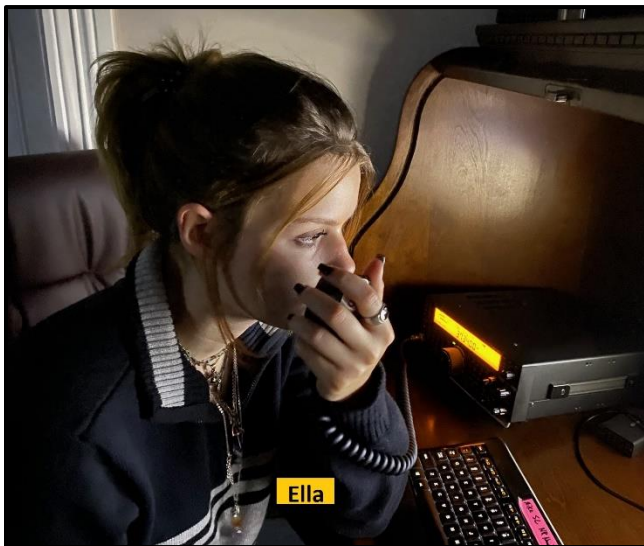
Geneva passed the mic to Hazel, age 6, who had zero hesitation. Fearless, that one. Hazel made a handful of Qs and decided to go QRT. Ella, age 19, was nowhere to be found, and Barrett and Rose decided the puzzle station was more fun. No worries, we still had 4 ops and we were forging ahead. BTW – if you're keeping count, that's 5 kids, and we have a 6<sup>th</sup> who is out on her own. No, we don't know what causes that. We're still looking into it.



Geneva and I alternated for a couple of hours until my son Reid, age 21, arrived from work, walked in the door, and yelled upstairs “Ok, everyone off the radio!” We were happy to oblige and add him into the rotation. More, “Did you mark that Q? Did you get the multiplier?!?” from the XYL. Before the contest, I put out a message on the Swamp Fox reflector to let everyone know what we were doing. Eventually, Reid found Ed, K3DNE, our current club President.

“Good afternoon, Burton... or... whomever.”  
“How does he know our name and why did he say whomever?” “He’s in my contest club and I told them what we’re doing.” “That’s so cool!”

After a couple of rounds, we lost Reid. Lost is the wrong word. We knew where he was; asleep on the couch in the shack. August weather in South Carolina is brutal and he had been working in it all day. Understandable.



About 9pm, Ella resurfaced. Where do these kids go and where do they come from? “Ok I’m ready and I’m gonna win this thing!” “No you’re not kid, your mom has been in the shack for 7 hours straight, and there are only 5 left!” “Whatever, just give me the microphone.”

Like her mother before her, Ella’s confidence grew quickly, especially after slicing through some big piles on T15CDA and S58N. Ella called another club member, Kevan, N4XL, who ended the QSO with, “Good luck with the family feud!” Like Reid and K3DNE, she got a huge kick out of that, and it drove her to push

even more. Ella called K9CT, who asked for a QSY to 160m at the end of their QSO. She checked the cheat sheet, looked at me quizzically, and said (to me) – “Uh...what?” Ha! We rigged for 160m, found K9CT, and completed another. Btw – you would have thought we were 3Y0J. Craig was super appreciative, and it gave me an opportunity to explain some additional contesting strategy to Ella.

Midnight hit, and Geneva couldn’t keep her eyes open any longer and went off to bed, confident her victory was securely in the bag. Ella stayed in the chair until 0145a, when we ran out of stations to work and called it a night. Scores were tallied the following morning (with many

demands for recounts) and lo and behold, Ella won by the skin of her teeth. Geneva came in a very close second, wins the award for total BIC time, and for coordinating all the details to make this event a huge success. Dad gets the immense satisfaction of going wide open for a near full time effort of 11 hours and 45 minutes.

Reid	Ella	Mom	Ella
PR CO NY VA MA MO SC NC ME HI NJ CO NE FL GA CA KY	OH KY V. MD NC AR DE TN AR SC GA IN VA CA TX NU KP IL WA FL PA MD	NH ND NY WY MA VT SC DE IL IN FL MD FL IL WA PA NJ CO VA NC FL MD HI IN OH	PA KY VA MA MO SC NC ME HI NJ CO NE FL GA CA KY

The Final Score

Everyone wants to do it again, and I've started asking them the question we all ask ourselves – "How are you going to change it up next time to do even better?" I suggested we could use a second radio, but my wife was quick to point out that, "No, that won't work because you're required to supervise." My response – "Yes, or someone else could get their license." Ha! We'll see if that works. If not, I hear the FCC has some enforcement positions open.

Looking through the comments on 3830, there were many examples of M/2 operations with veterans coaching up new licensees, long time licensees who had never contested before, and non-licensees. We definitely weren't alone. As a hobby, we're always asking how we can increase our appeal to others. I don't know the answer, but showing folks how much fun contesting can be, might be one answer. I really thought we would go for a few hours and everyone would lose interest. I never thought we'd go all the way to the end. Geneva, Ella, and Reid all decided they want to run next time, so they'll get some practice on a POTA activation. And as it turns out, surprisingly, Geneva has a great interest in building. I told her about crystal radios and she went nuts. She absolutely couldn't believe they work with no power source. I planned to buy her a kit, but came home one day to a fully built, fully functional crystal radio. Guess who's getting some QCX minis assembled soon? Ha!

Many, many thanks to all the operators who took time away from the contest with an encouraging word or short conversation. That graciousness is what kept our team going, all the way to the end. And once again, many thanks to the folks at the NCJ for putting on such a great event.

73, Burton, KY4ID.

## W7WZ Ready for CQWW SSB

By Kevan N4XL

Back in April John W7WZ extended an invitation to the SFCG membership to join his upcoming CQWW SSB and CW Multi-Two efforts in Fort Mill, SC. His antenna farm has grown some new aluminum since then. Dave AA4VT's exceptional technical skills enabled him to design and install the electronics essential to a modern day contest station in John's shack. W7WZ's new station will debut in the CQWW SSB starting October 28th.

Much planning and effort goes into building a large contest station and things go much smoother when a team is involved and several people were happy help. Besides W7WZ and AA4VT, Kevan N4XL assisted with tower climbing, N1MM tips, and operating concepts. Tower Guru Don Daso K4ZA gave invaluable guidance on antenna installation and climbing safety. Ed K3DNE drove over to help as ground crew for tower climbs and assembling antennas. As SFCG President, Ed was also the contact for SFCG operator recruitment. As ground crew, Scott KG9V was also a great help to the climbers.

Competition in the Multi-Two category is stiff. The best stations have an advantage, but operator skill can often overcome some of those inherent advantages. As the quote goes, "A Contester is someone who takes his'n and beats your'n, and takes your'n and beats his'n." Meaning the operators are the key components of any station no matter what its size. Stepping up to the plate for W7WZ's for the upcoming contest are John W7WZ, Dave AA4VT, Ed K3DNE, Kevan N4XL, John NJ4Z, Scott KG9V, and Don K4ZA. Dave WN4AFP and Rick W4GE may also join the team if schedules allow. John W7WZ has expressed an interest in having any level operator wanting to improve their skills come to the station to learn. Give him a shout if you are motivated to up your game by contesting competitively.

W7WZ will undoubtedly have some kinks to work out, but he is starting with a solid foundation. Plans are to replace the 2 element 40 yagi with a 4 element version, but for the most part the station is complete.

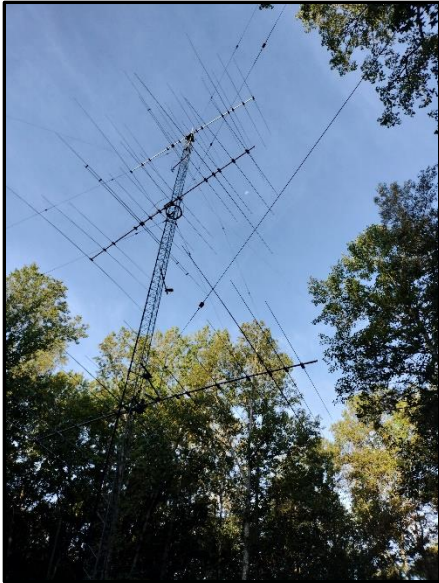
Station 1 Equipment/antenna lineup will be:

- Elecraft K4D with dual receivers, panadapter, and SDRPlay RSP-2 feeding N1MM Spectrum Display
- Acom 2000A 1.5kW amplifier
- High Power VA6AM BPFs for 40, 20, 15, 10m and 20/15/10m Triplexer  
- C31XR 20-10m tribanders at 65' and 35' fed with Array Solutions Stackmatch on South Tower
- Force 12 240N 2 element 40m Yagi at 100 feet on North Tower
- Dedicated station PC with Dual 19" monitors



Station 2 Equipment/antenna lineup will be:

- Elecraft K3S with dual receivers, P3 Panadapter and SDRPlay RSP-2 feeding N1MM Spectrum Display
- Acom 2000A 1.5kW amplifier
- High Power VA6AM BPFs for 160, 80, 20, 15, 10m and 20/15/10m HP Triplexer
- C31XR 20-10m tribander at 100' on South Tower
- 160m Inverted Vee at 95' on South Tower
- 80m elevated Ground plane suspended from North Tower
- Hi-Z receive antennas for 80/160m
- Dedicated station PC with Dual 19" monitors



South Tower- 3 C31's and 160 Inv-Vee



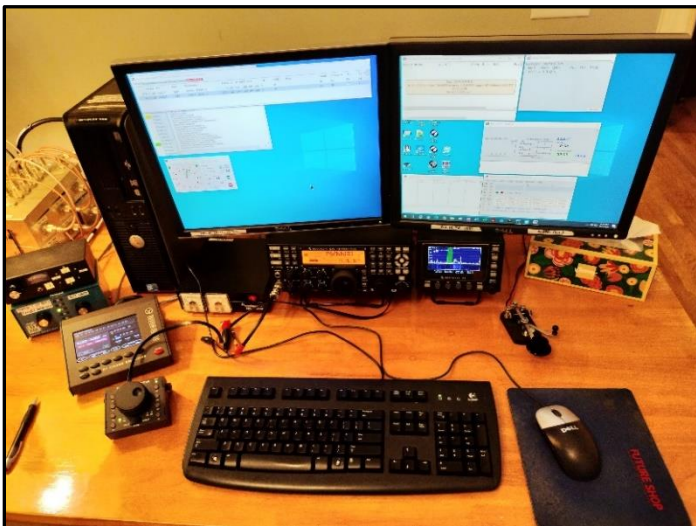
North Tower- C31, 2 ele 40, and elevated 80 ground plane



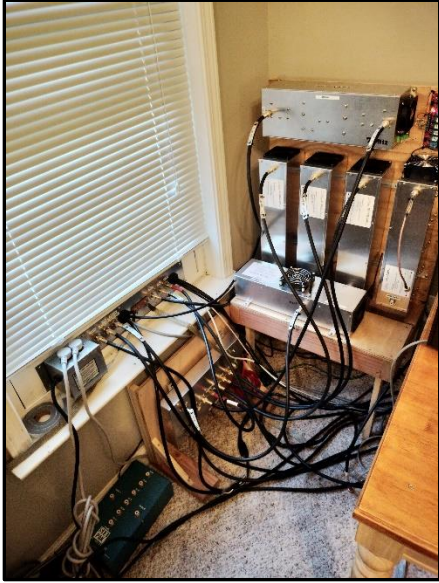
Hi-Z Receive Antennas and John W7WZ



Dave AA4VT at Station 1



Station 2

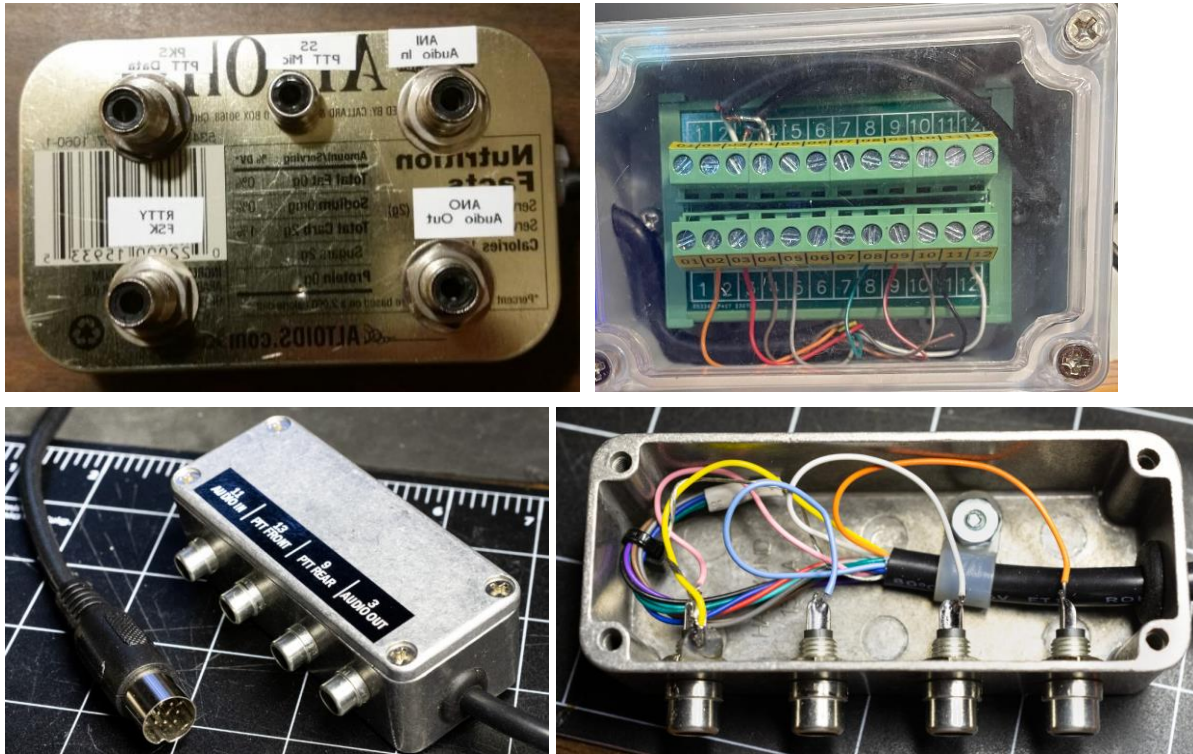


Station 1 Band Pass filters, Triplexer, and Antenna Switch.

### Observations by the Editor:

- WRTC 2026 will take place in the UK between 7th and 13th July 2026. Information is available at <https://www.wrtc2026.org/> . The first qualifying event is coming up in just a couple weeks. The CQWW SSB. The second is the CQWW CW the end of November. Even if you don't think you'll qualify as a contender it is fun to participate in these events and see how you stack up against your regional competition.
- People find many uses for white lithium grease. It is applied as most greases are, with a pump applicator or brushed on. A thread on the Amateur-repairs Groups.io reflector pointed out that although the lithium does lubricate it is actually a solid. A liquid "carrier" is used to help it flow. That carrier varies between brands. Some carriers dry out fairly quickly while others don't. A ham wrote he had used some to lubricate a vernier tuning drive. A ham responded "I'd keep an eye on that. I've been fighting white lithium grease in a project since late 2019, a rubber boot around a press-on connector. I've had to remove dried up chunks, and pry it loose every few months, and thinking back to the late 80's I've seen when white lithium grease DOESN'T ultimately dry up and get crusty." Another commented "These days, I'm liking the silicone-based "Super Lube". It's pretty awesome stuff and doesn't deteriorate plastics. Oddly enough, available at Harbor Freight, among other places."
- 13 pin DIN plugs are sometimes used as Accessory ports on the back of HF radios. Ever try to solder wires to those tiny pins that are very close to each other? It isn't easy. A TS590 Groups.io reflector thread was started about building a breakout box so the data and control lines contained in that Accessory port are more easily accessible. The 13 pin connector from the box plugs into the rig and the other end connects to regular RCA connectors mounted on the metal box. One ham instead uses a regular 12 position Screw Terminal Block Distribution module in a plastic box. That man didn't do so, but another ham suggested adding an

additional 2 Screw Terminal Block to allow using all 13 pin connections. Yet another noted metal is better for RFI protection. It was mentioned soldering the wires to the 13 pin male connector will sometimes cause the plastic supporting the pins to soften or melt. The pins can lose their straight alignment making it difficult or impossible to use the connector. One good solution is to push the male connector into a spare female connector to hold pins straight while soldering. My method is to not solder at all. Instead cut a male to male 13 pin connecting cable in half. You are left with two cables with a 13 pin connector on one end and can easily bare the wires on the other. Or you could order a cable from MFJ. They sell a cable with a 13 pin male DIN connector on one end and bare already tinned wires on the other. Here are some images of three breakout boxes from the thread.



- It's getting harder to find older electronic parts. I ran across reference to Netty Electronics at [nettyelectronics.com](http://nettyelectronics.com) and took a look. They have Crystals, transistors, capacitors, coils, resistors, IC's and cannibalized parts from old radios and circuit boards. He writes "I ship small items World Wide." He says he's semi-retired and reducing his stock. If you've been hunting something, you might browse his website.

### N1MM+ Tips:

- If you are having trouble setting up WSJT-X with N1MM you might look at the setup checklist found at <https://n1mmwp.hamdocs.com/manual-windows/wsjt-x-decode-list-window/#setup-checklist>

- Several requests for help have been popping up frequently on the N1MM where the problem has been a faulty USB cable. Such a failure can cause problems ranging from the expected complete failure to connect, to failure of the logger to track rig frequency changes, to intermittently blocking N1MM commands from reaching the radio. Faulty cables aren't normally initially thought of. Especially since broken cable wires make troubleshooting difficult because they sometimes work. Although not intermittent, G0TZZ's request for help on the N1MM reflector is typical. Like most people would, rather than suspect a cable he thought he had something set wrong, a file had become corrupted, or one of those pesky Microsoft Windows glitches had occurred. He described these problems before eventually finding a bad USB cable:
  1. The Function keys on my keyboards do not work. Both wireless (function keys turned on) and hard wired. The normal keys work and I can enter details into the Callsign box etc.
  2. When I change details in the N1MM+ config/hardware window then click okay, the spinning wheel shows and spins but never stops, consequently I have to use taskmaster to shut down N1MM+ and start again ending in the same results.
  3. When I change details in the N1MM+ config/configurer/Function keys/ window then click okay, the spinning wheel shows and spins but never stops, consequently I have to use taskmaster to shut down N1MM+ and start again ending in the same results.
- If you find yourself changing N1MM's setup parameters for different modes, contests, or radios being used you might think about using a different .ini file for each configuration. Some SFCG members have an .ini file for each contest they regularly enter. Instructions for how to do that is found in the Setup section of the N1MM manual under the subsection conveniently titled "Multiple INI Files".
- While contesting in SO1V mode (Single Operator 1 VFO) you may want to turn the sub receiver on to do some S&P. A quick way to do that using the keyboard using the ~ (tilde) key. The ~ key is used in SO2V or SO2R mode to switch between stereo and mono audio. Stereo is not used in SO1V so I had thought it useless then, but the ~ key can be reassigned to turn the second receiver on or off. Do that on the "Other" tab of the Configurer.
 

"Disable stereo key in SO1V mode" – When checked (default), this option disables the ~ (stereo) key in SO1V mode (it has no effect in SO2V or SO2R). Unchecking this option allows using the stereo key to turn on the subreceiver even though the program is in SO1V mode.
- Logging QSO Party operations from a County Line. Regardless of whether you are an in-state or out-of-state participant, if you work a county-line station, simply log it using the DAD/JEF/WAL format in the Exchange field. Separate QSOs will appear in your log, one for each county. A limitation of county line logging with the multiple county exchange is that the 'same callsign' cannot be logged again on any band or mode until the computer clock advances beyond the time stamp of the last logged QSO. This will unlikely be an issue for home stations, and only rarely for county-line stations

## Upcoming Contests:

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

## SFOTA Current Leaderboard:

Oct-17-2023						
Current Leaderboard						
2023 OVERALL STANDINGS						
CALL	Contests	CW QSO'S	SSB QSO'S	DIGITAL QSO'S	RTTY QSO'S	TOTAL QSO'S
1) N4XL	9	5814	2101	0	0	7915
2) N4IQ	29	3725	450	627	2977	7779
3) K3DNE	13	392	6512	388	102	7394
4) WB4HRL	103	5057	211	782	1099	7149
5) WN4AFP	71	4828	2102	0	0	6930
6) K4FT	85	5628	344	0	182	6154
7) K4QQG	47	0	4951	0	259	5210
8) NU4E	8	1263	3218	16	0	4497
9) KG4IGC	18	685	762	0	3019	4466
10) KZ3P	51	0	3889	0	0	3889
11) K7OM	25	1302	0	0	2547	3849
12) N4QI	77	2460	606	0	531	3597
13) KY4ID	21	2477	0	0	0	2477
14) KD4S	14	924	160	128	774	1986
15) AC4MC	5	769	933	0	0	1702
16) N1UZ	8	53	0	289	1135	1477
17) NJ4Z	4	267	968	0	0	1235
18) NE4EA	7	630	477	0	0	1107
19) KS4YX	4	122	0	0	718	840
20) N2OG	5	47	473	0	119	639
21) KG9V	1	0	465	0	0	465
22) NI7R	2	451	0	0	0	451
23) WA2BCK	3	130	63	0	0	193
24) KM4RK	3	0	100	0	0	100
25) KB1QU	1	0	57	0	0	57

2023 INDIVIDUAL MODE STANDINGS							
CALL	CW QSO'S	CALL	SSB QSO'S	CALL	DIGITAL QSO'S	CALL	RTTY QSO'S
N4XL	5814	K3DNE	6512	WB4HRL	782	KG4IGC	3019
K4FT	5628	K4QQG	4951	N4IQ	627	N4IQ	2977
WB4HRL	5057	KZ3P	3889	K3DNE	388	K7OM	2547
WN4AFP	4828	NU4E	3218	N1UZ	289	N1UZ	1135
N4IQ	3725	WN4AFP	2102	KD4S	128	WB4HRL	1099
KY4ID	2477	N4XL	2101	NU4E	16	KD4S	774
N4QI	2460	NJ4Z	968			KS4YX	718
K7OM	1302	AC4MC	933			N4QI	531
NU4E	1263	KG4IGC	762			K4QQG	259
KD4S	924	N4QI	606			K4FT	182
AC4MC	769	NE4EA	477			N2OG	119
KG4IGC	685	N2OG	473			K3DNE	102
NE4EA	630	KG9V	465				
NI7R	451	N4IQ	450				
K3DNE	392	K4FT	344				
NJ4Z	267	WB4HRL	211				
WA2BCK	130	KD4S	160				
KS4YX	122	KM4RK	100				
N1UZ	53	WA2BCK	63				
N2OG	47	KB1QU	57				

### 3830 Activity:

Contest	Call	Class	Power	Score
144FallSprnt				
09/19/23	K3DNE	Single Op	HP	384
09/19/23	NU4E	Single Op	LP	972
09/19/23	W4EEY	Single Op	LP	40
AzQP				
10/16/23	K4FT	SOCW	LP	940
10/15/23	K4QQG	SOSSB	HP	80
10/15/23	KZ3P	SOSSB	HP	116
10/15/23	N4QI	SOMixed	LP	128
CaQP				
10/08/23	K4FT	SO	LP	26,235
10/08/23	K4QQG	SO	HP	4,588
10/09/23	N4QI	SO	LP	4,401
10/09/23	WB4HRL	SO	LP	12,714
10/14/23	WN4AFP	SO(A)	LP	8,853
CQ WW RTTY				
09/26/23	K7OM	M/S	HP	92,685
	(@K7OM)			
09/25/23	KB1QU	SOAB	HP	131,480
09/25/23	KD4S	SO(A)AB	HP	156,216
09/25/23	KG4IGC	SO(A)AB	LP	444,808
09/25/23	N1UZ	SOAB Classic	HP	431,262
09/25/23	N4IQ	SO(A)AB	HP	1,386,840
09/25/23	NU4E	SO(A)AB	HP	1,250,800
09/25/23	WB4HRL	SO(A)AB	HP	296,869
laQP				
09/17/23	K4FT	SO Fixed	LP	8
09/18/23	KZ3P	SO Fixed	LP	48
09/18/23	WB4HRL	SO Fixed	HP	84
09/25/23	WN4AFP	SO Fixed	LP	560
Makrothen RTTY				
10/16/23	K7OM	SO/Single Xcvr	HP	1,056,882

Contest	Call	Class	Power	Score
10/15/23	KD4S	SO/Single Xcvr	HP	362,640
10/15/23	KG4IGC	SO/Single Xcvr	LP	1,748,682
10/15/23	N1UZ	SO/Single Xcvr	LP	1,751,884
MeQP				
09/24/23	K4QQG	Single Op	HP	44,022
09/24/23	WA2BCK	Single Op	HP	9,045
NA Sprint RTTY				
09/20/23	K7OM	Single Op	HP	330
09/18/23	WB4HRL	Single Op	HP	540
NCCC FT4-Sprint				
10/13/23	N4IQ	Single Op	LP	460
NCCC Sprint				
10/06/23	KY4ID	Single Op	LP	285
NHQP				
09/17/23	K4FT	Single Xmtr	LP	24
09/18/23	KZ3P	Single Xmtr Assisted	LP	24
09/25/23	WN4AFP	Single Xmtr	LP	8
NJQP				
09/18/23	KZ3P	Single Op	LP	192
09/18/23	WB4HRL	Single Op	HP	80
09/25/23	WN4AFP	Single Op	LP	374
NvQP				
10/16/23	K4FT	SOCW	LP	12
PaQP				
10/16/23	K4FT	SOCW	LP	8,076
10/15/23	K4QQG	SOSSB	HP	3,024
10/15/23	KZ3P	SOSSB	HP	16,752
10/15/23	N4QI	SOMixed	LP	4,359
10/15/23	WN4AFP	SOMixed	LP	34,467
SAC SSB				
10/15/23	N4QI	SOAB	LP	660



Contest	Call	Class	Power	Score
Salmon Run				
09/18/23	KG4IGC	SOMixed	LP	2,495
09/18/23	KZ3P	SOSSB	LP	942
09/18/23	WB4HRL	SOCW	HP	1,127
09/25/23	WN4AFP	SOCW	LP	12
SDQP				
10/16/23	K4FT	SO FixedCW	LP	112
10/15/23	K4QQG	SO FixedSSB	HP	42
10/15/23	KZ3P	SO FixedSSB	HP	1
10/15/23	N4QI	SO FixedMixed	LP	15
TxQP				
09/17/23	K4FT	SO CW	LP	5,100
09/18/23	KZ3P	SO SSB	LP	1,392
09/18/23	WB4HRL	SO CW	HP	5,040
09/25/23	WN4AFP	SO Mixed	LP	7,560
UK/EI DX SSB				
10/02/23	N4QI	SO12	LP	75

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