December 2022

Editor: Kevan Nason, N4XL

Thank you to our group leadership:

President – Ed, K3DNE
Vice President - Dave, WN4AFP
Treasurer – Phil, NI7R
Secretary – Kevan, N4XL

Web Master – Frank, KG4IGC
SFCG Webpage: swampfoxcontestgroup.com

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SFCG Meeting

After discussion with all the officers it has been decided to hold our annual meeting live on Sunday, January 29th at the Lizard's Thicket in Lexington SC at 3PM. 3PM is the earliest weekend time they had available where they can guarantee that the banquet room will be available for a private event (apparently business is booming and they now use that room as a dining room overflow on weekends). I would have preferred earlier timing for more daylight drive time after the meeting but that option was not available.

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, SFOTA award presentations, lunch (order off the menu and pay individually) a contest associated presentation will be provided. Matt NU4E will give a presentation on "contesting from across the pond" – sharing some of his contest experiences from DL and elsewhere including a bit about his use of wire antennas at his station here in SC.

I'm sure that Covid and the variants remain on everyone's mind and is a continuing concern. We will monitor and if the pandemic raises its ugly head again to dangerous levels, I will discuss with the club officers to determine if cancellation is prudent and QSY to a Zoom meeting again this year. Attendance is not mandatory, so if a member is not comfortable attending due to Covid then, by all means, do not attend. This is a personal decision and will be left to the individual member. 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

SFCG Officer Nomination Period

It is that time of year to begin our club process to determine officers for the next year.

I polled the present officers to determine their desire to continue in their present officer positions or for a different office for 2023. Ed K3DNE (President), Dave WN4AFP (Vice President) and Kevan N4XL (Secretary) have elected to run for continuance for their respective offices.

Phil NI7R (Treasurer) has elected to NOT run for continuance in office as Treasurer due to continuing health issues.

At this time I will open nominations for any member to nominate any other member of the club (or themselves) for any officer position for 2023. Note: All positions may have a member nomination even where the present officers have elected to run for continuance - the position of Treasurer is an open position and requires at least one nominee to fill the open position.

The nomination period will remain open until midnight Sunday, December 18, 2022.

Nominations may be sent either directly to me (via direct email - k3dne@...) or the entire club (via our groups.io reflector) - your preference. All I ask is before nominating a member you first check with that member to gauge interest.

Please refer to the Duties of Officers below (copy and pasted from our website).

73,
Ed K3DNE
President Swamp Fox Contest Group

Article III: Duties of Officers
Section 1. President

The President shall preside at all meetings, and conduct them according to the rules adopted. He/she shall enforce due observance of this Constitution and By-Laws; decide all questions of order; sign all official documents adopted by the club, and perform all other duties pertaining to the office of President.

Section 2. Vice President
The Vice-President shall assume all the duties of the President in his/her absence. In addition, he/she shall organize club activities, plan and recommend contests for operating benefits, and advance club interest and activity as approved by the club.

Section 3. Secretary
The Secretary shall keep a record of the proceedings of all meetings, keep a roll of members, submit membership applications, carry on all correspondence, read communications at each meeting, and send notices to each member. At the expiration of his/her term he/she shall turn over all items belonging to that office to his/her successor.

Section 4. Treasurer
The Treasurer shall receive and receipt for all monies paid to the club; keep an accurate account of all monies received and expended; pay no bills without proper authorization (by the club or its officers constituting a business committee). At the end of each quarter he/she shall submit an itemized statement of disbursements and receipts. At the end of his/her term he/she shall turn over everything in his/her possession belonging to the club to his/her successor.

N4HEK – Welcome!

Please welcome new SFCG member Eddie King N4HEK! Eddie is originally from Florence SC and spent many years in Columbia before moving to Hilton Head Island in 2004. He was originally licensed as KA4FLD, then N4PSH and now N4HEK, holds an Advanced Class license and was referred to SFCG by members WA2BCK and K4QQG. Eddie has a degree in Electrical and Computer Engineering, a Masters in EE and is working part-time on his PhD in EE (anticipated dissertation will be related to HF radio). He recently retired from the University of SC System working in IT most of his career. His station consists of a Flexradio 6600, a Carolina Windom and a SteppIR vertical (presently out of service pending relocation). He states that over the years he has dabbled in contests with a variety of modes and is interested in expanding that activity with a primary interest in CW, digital modes and a little voice activity. He is very interested in CW (but "not especially proficient at it" and hopes to expand his abilities through SFCG) and wrote an article for the Smithsonian Magazine in 2019 - "Morse Code Celebrates 175 Years and Counting" https://www.smithsonianmag.com/innovation/morse-code-celebrates-175-years-and-counting-180972248/. He is looking forward to meeting us in person and over-the-air. Welcome Eddie!

Eddie is the Area 6 South Carolina ARES Emergency Coordinator.

KB1QU – Welcome!

Chip Swett KB1QU also comes to SFCG via WA2BCK and K4QQG (as did Eddie N4HEK) . Chip resides (at least October thru June) in Hilton Head Island. His summer residence and remote station is located in Maine (FN55) check out the photo on QRZ.com!kb2 Chip holds an Extra Class license and was originally licensed in 1959 (at the age of 14). His previous calls include: WV2ICG, then WA2ICG, WA7SUD, WA6DEU and now KB1QU. Also; 3D2QU (Fiji), A35QU (Tonga), and 9G5QU (Ghana)! At his remote station in ME he has a Flex 6600 and Flex PGXL amplifier. Antennas: GXP 3 elements for 10-20m, 2 elements on 30 and 40m, Inverted-L's on 80 and 160m and 5 elements on 6m. In SC and for POTA he uses a FT891 and a Windom. He runs 440 MHz and D-Star nets in the low-country. Chip states that he is particularly interested in CW contesting but will enter most RTTY contests and many SSB events as well. I can't wait to learn more about his time in Fiji, Tonga and Ghana in the past!

Chip is an extremely active ham. In addition to the above he has donated time on his remote Maine station to the Youth Network Remote Ham Radio program to support young hams, operates a DSTAR repeater, and is a Volunteer Examiner. We are looking forward to hearing more of what Chip is into.

KM4WPR – Welcome!

Please welcome Norm Perez KM4WPR to SFCG! Norm was referred by Al NE4EA. Norm lives in Conway, holds a General class license and is just getting started in contesting with Al's assistance. Presently his shack consists of a TS590, FT450D and a fan dipole. He has a 40 foot tower that he plans on getting in the air next year! He prefers SSB contests and he and Al operated together using Norm's call in last weekend's ARRL10m contest.

Contest Tips:

From the Florida Contest Group, Contesting Do's & Don'ts Rev. June 2021

• Record notes about any questionable QSOs during the contest. (In most logging software, Alt-N will record a note on the fly.)
• Work dupes…don't argue whether or not the station is a dupe
• If you are working from a DX location, and you start to get a string of dupes, it means that you call has been mis-spotted. If this happens, change your frequency and start a new pile up. (Advice from Alex, W2OX/V47KP)
• Tune in the direction of the sideband – tune up for USB, tune down for LSB.

Improve your station. Learn the truth about feedline matching, antenna loss, VSWR, directivity, and gain. That means read and study. That means experiment. That means cut and try. Shrug off the myths embraced by the mediocre. Don't listen to people who tell you that 2:1 SWR is good enough because all the power goes somewhere eventually. Or that 9913 is lossless at HF. Or that a 1 dB difference in a signal is unnoticable at either end. Or that connector loss is negligable. All those statements are lies. Find out why. Work on your antennas. Nothing is perfect or stays that way. Put up new antennas. Try wires. Try loops. Try beverages. Try low-noise receive antennas. Try slopers. Try, try, try. All these antennas are relatively low-cost.

How about a very simple wire antenna used by a lot of the top contesters? We're talking Beverages here, and apart from the matching transformer, they are about as simple a receive-only antenna as you can get. They are cheap to construct, and as long as you have the space, an unbeatable option for the LF bands. You might think you need miles of open grassland for good results, but many use them through woods etc with great results, and if you've a wood next to you, thats the supports taken care of too - just buy a bag of electric-fence insulators from your local farm-supply store. If you live in the city, buy a drum of black wire and run it along the tops of fences etc. when the neighbours aren't looking - a 'stealth-beverage.' For many, the beverage is a seasonal antenna, making its appearance for the autumn contest season and disappearing in the spring. W2UP suggests a simple support system, consisting of 3ft lengths of rebar hammered into the ground. A length of 1.5" PVC pipe is slipped over the rebar. At the end of the season, the rebar is pulled out of the ground and saved for next year

Normal People.
So, you've got this far, but are still not convinced you can do without that stack of monobanders ? Well, the following might be of interest you, extracted from a survey in the RSGB's 'Radio Communications June 1992' magazine, based on a poll of all UK stations on the DXCC Honour Roll at that time....

Some had very small lots : one had a garden only 16ft square behind his house.
Approx 50% used three element tribanders. Those who had moved to quads reported they were not going back. All quads except one were two elements - the exception was the famous G3FXB quad, which had three elements on 20, four on 15, 10.
Antenna height: Only 3% used antennas higher than 60ft. 40% used 60ft, 30% 40ft, and 14% 30ft. Only three used directional antennas on 7 or 3.5Mhz. Only one had a rotary on 7MHz, none on 3.5.

Good results were reported with very modest whips etc. on 7MHz. The consensus was that one could do well on 3.5 and 7MHz with simple antennas, but that it was necessary to experiment with whatever will fit on the site until it is discovered what works for you.

- In a discussion about CW spotting, Alan AD6E/KH6TU gave the most original tip I've heard in several years. I often hear big pileups trying to work his KH6 multiplier.

  "A trick that I do if I see I've been spotted: I click on my own spot which zerobeates me with the spot. then I move up or down about 50 Hz so when the hordes arrive I'll be slightly off their frequency. Then they have a better chance of copying me when I get clobbered by QRM."

- From N4XL. If you have directional antennas on the high bands it sometimes pays to think "mountains" instead of direction. VT on 10 was one of four states I need to finish Worked All States on 6 bands. During the ARRL 10 meter contest I heard a weak K1ZK running in Vermont and threw out my call. He was working strong W0 and W7 stations. I spun the beam to point northeast. He faded to almost nothing. Spun it back to the west and worked him using backscatter off the Rocky Mountains. You are weaker with backscatter, so I had to wait for a lull in the pileup. Later, while pointed towards EU, I heard Tor N4OWG who is in MS. He too disappeared when I pointed towards him. Spun back northeast and in the log he went. Must have been bouncing off the NY or NH mountains since those stations were coming in pretty good at the time. I often look for Maryland on the high bands by pointing west and towards South America for our next door neighbors over in Georgia. Keep that "trick" in mind if you hear a needed mult.

From the Reflector:

- Ed K3DNE has been looking at SFCG's performance from year to year in contests that have club competitions. He is seeing an upward trend in our standings across the board. Good job fellow Foxes! Let's keep it up.

- Kevan N4XL encouraged folk to spot SSB stations. Some feel you shouldn't share your good fortune of snagging a juicy mult with your competition. Those very words were recently posted in a reflector. Most competitors feel it shows good sportsmanship and overall benefits the Ham community. Just be sure to work them before spotting them so you don't have to fight the pileup.

- Burton KY4ID created a spreadsheet to track SC stations that are not in the SFCG but participate in contests. Outreach recruiting efforts are being documented so we do not irritate the operators with multiple requests.

- Dave NJ4F offered to let his damaged SteppIR DB-18 go.

- Burton KY4ID discovered how Morse Runner has been integrated with N1MM to aid in contest CW practice. That lets one use the same program for both practice and contesting which can only improve effectiveness and scores.

- Tom AJ4UQ had a cameo appearance in a QST article about Field Day.

- Matt NU4E has tackled some of his antenna problems (more problems always crop up though!), but replaced them with QRM which is apparently coming from Christmas lights. Since the noise is

coming from the same direction as EU signals it has had a significant impact on both score and enjoyment. Hey y'all… If you want to whup him now is your chance!

- Scott offered a furry self-powered lap heater for a shack mate. Don't know if the kittens are still available, but you can ask.

- Van N4VGE is in the early planning stages for a DXpedition to Vanuatu in December 2024 for the ARRL 10 meter contest. 10 meters ought to be wide open with signals around the clock at that time of the sunspot cycle. Being on an island with plenty of salt water around the q's should be coming in very strong. He plans on four stations for the single band two mode event. Expected cost is $4,500 per person including airlines, housing, and cars. XYL's are invited. SFCG Reflector message #22228 from November 29th has his contact information.

- Scott N2OG shared a link about solar storms.

- Some thoughts on the newly allowed practice of self-spotting in ARRL contests was shared.

- The welcome message for Chip KB1QU brought a discussion about where some of the places our members have been during their lifetimes. As noted above, Chip has operated from some great DX locations. Ted K7OM shared some interesting photos from his time abroad working on government radio systems.

- Dave WN4AFP shared a 1974 QST Novice Roundup article showing he has been placing first in South Carolina for decades.

- During the 10 meter contest Frank answered Scott K0MD's 50 WPM CQ with his own call at 50 WPM. Scott's reply? "PSE QRS QRS".

- George N4QI continues to show where there is a will, there is a way. He managed 173 q's in 7.5 hrs during the 10 meter contest using low power and an attic antenna. He was particularly proud of snagging four HI stations. He did again verify what most know… CW is more effective than SSB.

- Gil KS4YX returned to the air and was not to be outdone by George N4QI. Gil uses a dipole, but only 5 watts. He logged 130 q's in the 10 meter contest. Good job, Gil. Get your beam up soon. (I've a 5 ft roof top tower sitting on the ground out back that would easily handle it if you are interested.)

- Matt NU4E made the great snag of ZL1RS on 6 meter FT8. Ed K3DNE had some thoughts on the propagation path needed to do that.

- Dave WN4AFP finally broke the 100 q/hr barrier during a CWT.

- Phil NI7R brought up in a roundabout manner the need to put a note in your PayPal payment for club dues so he knows what call sign is paying.

- ED K3DNE has shared several propagation forecasts from W3LPL he receives from the PVRC.

ARRL Insurance

By Kevan N4XL

Dave NJ4F had a surprise when he contacted the ARRL's insurance provider about his hurricane damaged tower and antenna. Those of you with policies might benefit by reviewing your contract. The insurance is apparently provided by a third party, not the ARRL, and advertising statements about coverage may not be what the carrier actually provides. Dave has asked the ARRL about their advertising claim which he understood to be "All Losses are settled on a replacement cost value. (Replacement cost is the full cost to repair or replace the damaged property or actual cost to reproduce property with other property of equivalent kind and quality)." Dave states his benefits are only $1100 for antennas, and $4000 for towers, which does not come close to the cost of replacing his DB-18 SteppIR antenna, extendable tower, and other damaged equipment. He has reached out to both the carrier and the ARRL, but as of this writing has so far been unable to resolve the issue. He is particularly disappointed with the lack of response from the ARRL. It is also interesting to note that as of 12/15/2022 the website arrlinsurance/faq had this question and answer. "What coverage is provided in the ARRL Insurance Program? Coverage is provided for ham radios including accessories, antennas, rotators and towers; data processing systems, computer and component parts; data and media. Towers and Antennas are eligible to be covered up to $15,000 per policy period."

CW Pileup Busting Tips from CWOPS

By Kevan N4XL

The proliferation of the Click-and-Work operating technique for spots has led to pileups where all a Runner hears is a single tone in answer to a CQ. If several S&P ops click on a spot their transmitters are all on the same frequency making it nearly impossible to pick one of them out. Here are things successful ops do from both the Run and S&P perspective to pick a call sign out of the mess. Excerpts were pulled from CWOPS.groups.io beginning with post #56082 by N4ZR. Pete asked if Runners pick a caller with a tone higher, lower or closest to the Runners tone. Out of the 38 responses (so far) there doesn't seem to be an overall preference for higher or lower because each rig and operator is different. Not surprisingly, the general response was to make your TX freq be off frequency a bit.

An important S&P skill is the capability to quickly size up a pileup and know which techniques have a high likelihood to break through. Quickly means evaluate the pileup in a matter of seconds – or less. Available techniques to try should be second nature and require no thought. That way you can instantly respond to opportunities, some of which exist for only a few tenths of a second. Knowing techniques used by various runners helps you develop your own "tricks" and will also help when deciding if your best option is to just move on and come back later.

I purposefully included duplicate posts of preferred offset ranges when those seemed to be the preferred operating technique of several operators whose calls I recognized as being active contesters.

- Tim N3QE: I remember the first time Frank W3LPL watched me over the shoulder as I clicked on a spot for a mult, and then he saw me instinctively offset the rig's dial by a little bit. He told me I might have to do that at home but wouldn't have to do that so much at his station :-) I still do it at home and as guest op!
  (Editor's Note: I put this comment first because high power and/or geographically advantaged ops may not appreciate what Little Pistols need to do to break a pileup. I was told the same as Tim when I first joined NQ4I's Multi-Multi team – 'Things work differently here than you are used to.' That is

certainly true, and the tips listed below aren't as important for big dogs. Even so, there are some ideas in the thread that can help anyone make a q when in a spot generated mess.)

- Dave WN4AFP: I don't have a preference if the caller is low, high or on my freq. I tend to respond to the 'late' callers.
- Tim N3QE:

  1: I will respond to the one with the most unique tone. This will often be the one furthest off my zero beat frequency. It might also be someone with a chirpy or buzzy signal (there's not many of them anymore but there are some).
  1a: I want to add that it is rare for me to have my CW filter narrower than 450-500Hz. Others tell me they always run with 100Hz filters which sounds crazy to me but may be true.
  2: Many modern rigs default to "CW-U" where the upper sideband is coming through audio filter and a higher RF frequency is a higher audio pitch. Some of us (me!) prefer "CW-L" which is the other way around. Older SSB rigs almost always defaulted to LSB on 40/80/160 and USB on 20/15/10 (many economy models couldn't do the other sideband because of IF and conversion choices and also had tuning knobs that "worked the other way" for low bands vs high bands).
- Doug KR2Q: I reply to the strongest (loudest) one. If lots are calling and all are about the same, I call the one that I copied the most of his call… I keep my rx BW at 300hz (width, not tone).
- Rich VE3KI: For the first question, for me it's the one that stands out the most. Sometimes it's higher in pitch, sometimes it's lower, sometimes it's the one that's closest in frequency. Being the loudest one definitely helps. So does having an easily recognized callsign, or using a different CW speed from the rest of the callers, or being a bit early, or occasionally being a bit late. In other words, I don't think there is a magic formula - it varies, even with the same operator.

  Regarding your last question, if you knew for sure that you were using the same sideband as the other operator, then if you wanted to be heard at a higher pitch, you would tune so the other station was lower in pitch in your ears. However, there is no way to know that for sure unless you know the other operator's sideband preference for CW. The sideband used for CW varies between rigs, and anyway some operators prefer the opposite sideband to the one their rig uses by default, so they use CW-R. So, even knowing which rig the other operator is using doesn't tell you which sideband they are on. Some people switch sidebands when S&Ping depending on whether they are tuning up the band or down the band. Or they may have switched from CW to CW-R to help them battle QRM during their last contact. It might be that there is a statistical preference for one sideband or the other overall, but in any individual QSO you can't be sure which one is being used.
- Rob K6RB: If one signal is significantly louder than the others and I can pick out his entire call, that's who I come back to. If I'm hearing mush but one station got a jump, first, and I hear a prefix, I will send prefix and ?... With regard to filter bandwidth in most cases I run with 450 Hz…
- Glenn KE4KY: I usually *run* with my CW filtering set to 450hz width. I narrow down while running should adjacent QRM compel me.
- Jim K4QPL VP5M: In summary, loud, familiar calls come to the top of the list, then just loud. Not always fair, but everyone benefits if they're out of the pileup sooner. If the pileup forces a reasonably wide channel I use what I call Hi-Lo. I'll move the RIT up enough to work the smart callers off frequency on the high side. When the mob realizes who I'm coming back to, I switch the RIT to the low side and work those smart guys. Repeat. As the crowd gets smaller I work closer to my

frequency. I generally set the filters at 250 Hz for CW which is generally wide enough for contest channels

- Jim AD0AB: When I'm calling CQ, I answer the call I can actually read. With so many stations exactly zero beating me, that is usually someone 50-100 Hz off my frequency. I don't care if their pitch is high or low, if I can read them I answer them. If I can read 2 or three stations, I call the strongest one first to get him out of the way so I can hear the weaker ones.
- Jeff N6GQ TO5Z: My suggestion is to introduce a random offset in cluster-cicks of 50 hertz or so. I think this is an option now in N1MM if I remember right.
- Stein-Roar LB3RD K3RAG: I prefer also +/- 20-50 hz offset, and often running with RIT on permanently
- Mike VE9AA: I love the happy clickers*...one giant zero beat blob and little ol' me 50Hz away getting through first time makes me laugh.
- Hans K0HB: I've noticed that RBN has a granulation of .100 MHz, as in 14024.1, so I deliberately "run" on a QRG like 14024.150. Some of the point and click guys will now need to tweak the big black knob to tune me in, and will call outside the "blob".
- Mark N5OT: I don't use the N1MM "automatic random offset" option because I like to be able to turn it on and off with out tying up Windows with tabs inside menus config screens (where that particular thing is located, I think). I also don't like "random." I just use 30-50Hz of TX offset that I switch on and off on the radio.
- Scott K9MA: When calling, I try 30-50 Hz off. There's no way to tell whether the other prefers higher or lower pitch, nor which sideband s/he is listening to.
- Fred K6DGW: I still hold out hope that, when I come back instantly to the guy who isn't zero beat and who stands out from the rest, some of the pack will notice it and realize they should move 20-40 Hz off my QRG.
- Doug KR2Q: My first rule of calling into a pileup is to make a judgement call about the size of pileup and what their behavior is. That's right, I listen first (gosh...now where have I read that before...LOL). If the pile is just too big, I go away and I'll come back later. If it's a contest, I know that they will be begging for QSOs later, especially if it is day 1 of a contest. Also, you don't have to be the very one to call when the prior QSO is completed. The KEY element to cracking any pileup is to be heard. If you running 100w to an EFHW or 43' vertical, or QRP, etc., PLAN when to call. Listen for breaks in the pileup when "they" all stop calling (or most of them) but the runner has not come back to anyone yet. Then dump it in.
  (Editor's Note: Planning the call is my "secret" weapon. That's why I earlier stressed being able to quickly respond when opportunities arise.)
- Pete N4ZR: I found during the 10M contest that sending more slowly than the majority probably made the biggest difference when I was running.
- John K3TN: I've worked over the years to train myself to lock onto the fastest sender - probably because in Morse Runner a lot of the slowest senders would make it even worse by sending their call twice! But that is the fastest way to keep things moving. I also lock on to the lower in frequency one if there are a few at equal speed, so when I'm a caller I try to be a bit lower in freq than the last station worked.

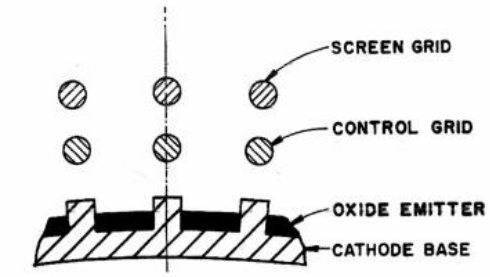
Ending with a thought from a different thread… A new Q-code is being considered by some. Mike VE9AA proposes *QZB* = You're all zero beat; pse use ur XIT +/- !

4CX5000B

By Norm, N6JV (From the NCCC JUG newsletter issue 602, Sept 2022)

The old 4CX1000A/8168 tube of 1957 was a big success in spite of the potential damage to the grid when it was overdriven. In order to achieve very high gain, the grid needed to be made with a dense pattern of very small, gold plated, wires. The cathode was a cylinder that had an evenly applied coating of barium-strontium oxide. When the cathode was heated, electrons would be emitted toward the anode. Some of the electrons would actually strike the grid wires and draw current. If too much current was drawn, the grid wires would overheat and loose some of their coating which resulted in secondary emission and increased distortion.

The obvious cure would be to make the electrons miss the grid wires. The gun type emitters have been used in CRTs, but aiming streams of electrons so they miss the grids but still hit the anode in an even pattern, was the problem. These structures are very small. EIMAC began experimenting on what they called a “focus cathode” using the 4CX1000A platform. This assembly was made by machining a series of vertical channels into the surface of the cathode cylinder in a number equal to the number of vertical grid wires. The oxide is applied to the valleys and the steep sides of the lands act as deflectors that shadow the grids from most of the electrons. The illustration was adapted from an unpublished EIMAC report.



The 4CX15000B/8660 tube was made with this grid structure. The grid was rated at 1 watt which allowed higher power to be produced while maintaining very low distortion in AB2 mode. The new tube could be used to replace the 4CX1000A with a small increase in screen voltage. Adapting this technology to triodes lead to the well-known 8877.

Norm N6JV

For Reference:

The following poster image is recommended facetiously and to only train on what NOT to do. It was posted on the Amateur-repairs Groups.io reflector.

I will note that stupid stuff like this does happen. I used to doubt trained people did such things until an experience I had on the U.S. Navy Destroyer Tender USS Puget Sound (AD-38). I stepped out of our planning office one day to see two electricians replacing a fuse. It was for the lights in an office next to ours. Don't remember the exact numbers, but these are close. They were installing a 50 amp fuse. That seemed high to me so I looked at the panel label which stated a 20 amp fuse was used for that circuit. When asked why 50 amps they told me they didn't have a 20 amp fuse, it was common practice to use a higher value in those circumstances, and they had their supervisors permission. Yes, I did notify the Division Officer about what I had witnessed and what I was told. They were back in the panel a couple hours later and gave me a dirty look as I passed by. I was glad to leave that ship.

Observations by the Editor:

- Several of us enjoy reading Frank W3LPL's propagation forecasts that Ed K3DNE has been forwarding. For those of you wishing to view these on a regular basis they are usually forwarded to the DFW's open contest reflector and are available https://groups.io/g/DFWContest. (It would be great to receive PVRC emails like Ed. I wish I had been a contester and known of the PVRC when I lived in Virginia.)

- Apparently, some folks using N1MM are having USB Device instability problems. N1MM reflector post 73437 had this advice from David K1TTT. One or two of these looks like they might help me with my SO2R issues as they use USB connections. I'll give them a shot in a day or two.

  I don't have all the answers, but some of them may be related to these…

  - Make sure all usb power saving features are shut off… this has been covered many times on here I think.
  - Turn off the boot up mouse detection process, this is what first tries to send data to each com port which often causes radios to key up or other devices to do weird things on boot up. It also is what causes the cursor to jump around after bootup if it happens to detect a response if thinks is from a mouse after it polls each com port, the acom 2000a serial interface is known to do this. There are many web pages that give different methods of doing this, check out https://forums.radioreference.com/threads/headache-saver-disable-microsoft-serial-mouse-detection.438104/ , https://www.taltech.com/support/entry/windows_2000_nt_serial_mice_and_missing_com_port , https://paulhutch.blog/2019/06/24/disable-serial-mouse-detection/
  - There are tools to monitor and diagnose usb problems, I have used usbdeview: https://www.nirsoft.net/utils/usb_devices_view.html which doesn't directly let you view data, but has lots of other good info on usb ports… a google search for 'usb monitor data' gives several references.

- Along those lines, in my seemingly never-ending quest to find out why I get intermittent trips of my SO2R antenna switching system I ran across this info. I had thought using Device Manager was enough to keep USB ports from sleeping, but maybe not. There is a "hidden" setting in the overall power management scheme too. It sounds like this setting can let the entire root hub go to sleep to save power regardless of the individual USB port settings. Couldn't get to the root hub setting by exactly following these instructions, but I eventually got there by following logical choices from the available choice descriptions. I had told Windows to use Maximum Performance settings there was an option to "Change advanced power settings". Buried inside that choice I sure enough found the root hub "USB selective suspend setting" was set to enable. It didn't solve my problem but might help someone else.

  Windows 10 / 8

  1. On your keyboard, press the Windows key + X and select Control Panel.
  2. Click Hardware and Sound, then click Power Options.
  3. Click Change plan settings for the plan you want to change.
  4. Click Change advanced power settings.
  5. Click the plus sign (+) next to "USB settings" and "USB selective suspend setting" to expand the options and change the setting to Disabled.
  6. Click OK to apply the setting.

  Note: You may need to disconnect and re-connect your USB device after applying these settings to re-establish the connection.

- Alas… Neither of those two tips solved my tripping problem. Still, those tips are good things to know about.

- Some subtleties occurred to me about KH6TU's earlier tip about moving his frequency slightly off his spotted frequency.
  - 50 Hz isn't much. For it to make a significant difference it probably…

        - Assumes people are using a lower CW receive pitch. It is easier to hear a 50 Hz difference when at 350 or 400 Hz than it is when using what many consider a more standard 800 Hz pitch.
        - Means very narrow filters would be needed to further help pull him out from the pileup mess. Coincidently (??) I had recently noticed that I have been having more success pulling out the runner in big pileups by shifting to 80 Hz filters. Maybe more runners have been doing what Alan does?
    - I have also noticed that lately I've been having slightly more trouble working people the first or second call after jumping to their spot.
        - Maybe because they moved slightly, are using narrow filters in big pileups, and are not listening on the spotted frequency. That essentially requires the DXing skill of quickly locating where the "DX" (as in Running contest station) is listening. That shift in contesting practice seems to be happening since twice during the CQWW CW contest I found myself "chasing" the runner down in frequency as he shifted his receive freq to pull stations out of the pileup. Unfortunately, I wasn't in split mode and had trouble hearing the runner respond to me because while chasing his receive frequency his tone changed along with my chase. I doubt many runners will adopt the habit of changing their receive frequency in pileups once they think through how their practice affects what the S&P ops are hearing and that it actually slows down the runner's rate.
        - Apparently, people who operate skimmers and feed their output to the RBN can control different aspects of the data feed. (Or maybe they have calibration issues). I've been wondering why sometimes clicking a CW spot plops me right on top of the station and at other times I find them several hundred Hz away. It hasn't mattered if I use N1MM's randomize incoming spots option or not. Alan's tip may explain some of that. Or the station moving after being spotted would do it (assuming they didn't move far enough for the RBN to consider them as having moved and respotted them again.) I started hovering the mouse cursor over the call sign of the skimmer spot in my Band Map. It lists something about how far off the reported spotted frequency the RBN spot on my Band Map was. Most were a couple-three hundred Hz, but in one case it was an entire KHz for a CW spot! Any thoughts why that is happening? I wonder if skimmer operators are taking it upon themselves to try and help unburden the Runners from having the hordes land on the same frequency? By having to tune a bit to find the Runner it counters that. Or in the conspiracy theory camp… Maybe the skimmer operators hate the Point-and-Click crowd and want to force us back to turning the VFO more? Good thing I do both Point-and-Click AND turn my VFO.
    - A discussion about contest burnout on CQ-Contest held a few juicy tidbits that caught my eye. In most cases these are excerpts from a longer post.
        - K6LL: "I remember having a similar discussion with K4BAI a few years ago, and his view was that if life was better with ham radio, keep on going, doing whatever you can. Nobody else pays much attention to what we each do as individuals, so do whatever provides the most enjoyment for you."

- WB9SBD: “Myself I'd like to see a contest where strategy plays a major role in the contest, not just pure stamina and or great stations. A contest where you get rewarded by working the harder ones to work more than the easy contacts.”
- AB7E: “I wholeheartedly agree. There is a reason that video games are so very popular ... they use great visuals and involve tiered strategies of one sort or another. I have argued for years that ham radio contest would be a lot more fun than being mostly just an endurance event if we could come up with some way to add layered strategies for obtaining points, and maybe even overlay real time activity on a global map ... or some other way to add visuals to the contest that display”
- W0YK: “For me, avoiding contest burnout has been due to enjoying the operating more than the result of winning. I've never felt my operating was perfect, so there's always been the challenge of improvement.”
- WN4AFP: “If you are looking for a challenge, I would give the State QSO Party Challenge a try for 2023.” W1RM responded, “Interesting idea Dave and I thank you for it.” *(Editor: The original poster liked that idea)*

- Our neighbors in the Southeast Contest Club are taking note of our increased competitiveness. Andy AA5JF posted this to their reflector:

  Hi South Carolina friends,

  Was exploring the CQ WW CW raw scores, and found this while filtering for W4. Five of the ten in low-power unassisted form SC? *(Editor’s Note: I believe he meant assisted as the list below is for that category.)* Nice. Living just three miles from South Carolina, I don't seem to have enjoyed this advantage. None from GA (maybe K2MK though). Felt like I did ok, but am so low in the W4 rankings for HP assisted, I can't even figure out what place I'm in. In GA, got completely schooled by NO9E and K4PI and others. Perhaps should be competing without the amp.

  I will say that my own sense was that the conditions for this one, while not great, were not great for the Northeast either, and may have slightly evened the playing field on the higher bands. Our openings on 10M/15M to Europe were comparable for those in NY/MA. We still had a disadvantage on 40 and 80 of course.

  Assisted Low All Bands
  N4XL.....1,557,246
  K4OAQ.....1,259,350
  WN4AFP.....888,150
  KW4YA.....792,044
  KY4ID.....(R).....739,845
  K4FT.....722,672
  AA0O.....711,684
  N4PSE.....690,976
  KY4GS.....(R).....588,390
  K2MK.....568,125

  Congratulations to the Palmetto State LP contesters!

N1MM+ Tips:

- Slash-zero fonts make it easier to differentiate calls. There are several available. I use the Andale mono or Consolas font. It isn't a big thing, but I have caught myself having typed "oh" instead of "zero" before I hit enter and try to log the call. Catching it early prevents N1MM telling me the call is bad. And if I do try and enter a bad call using a slash-zero font simplifies finding why N1MM says the call sign is invalid. Which of the two fonts I use depends on which looks better for the particular N1MM window and font size I am using. Below is the difference between the two fonts using the call IO0T. I did a JPG image of the fonts because computers usually substitute fonts when they encounter fonts in a file that are not loaded into their font base.

  First in Calibri font (which is what this text is in), then Andale mono, and finally Consolas… IO0T, I0ØT, IØØT. I had to increase font sizes from 12 to 13 on two of the three to make them appear the same size for easier comparison. Note it is also easier to differentiate an "eye" from a "one" in the two slash-zero fonts and that the Andale mono font (middle one) has more clearly delineated spacing between letters.

  After writing the stuff above I found a zip file of several fonts at the addresses below. After playing with several of them I settled on a mixture works better than just using one. N1MM lets you can choose them under Config> Manage Skins, Colors and Fonts. You can use different fonts for different types of text in displayed N1MM windows. You can also adjust the size of font types too. During last weekends 10 meter contest I changed some around and found different types and sizes (other than the default) in different windows worked best for my eyes and monitors. I no longer only use the two mentioned in the first paragraph above. One other I had to try just because of the name, and ended up using, is the Ham font. I found I liked that one as the N1MM font used in "Small – most labels, Log Window data" font slot.
  http://www.wm8c.com/slashed_zero_fonts.htm
  https://www.g0hwc.com/ham_radio_fonts.html

- Most of us prefer our own window layout when using N1MM. What works best for me may not work for you. N1MM saves window layouts for individual operators as well as the general station. By default, with no specific operator logged in it uses a default station ini file. If you tell it N4XL or WA2BCK is logged in it uses files that operator set up. I wasn't aware that it remembered window positions favored by an operator too, but it does. Seems to me remote operations at a shared station or regularly used your station as a multi like K4RM or N4IQ does that would be a useful feature.

- Using radio CAT commands adds the ability for N1MM to activate virtually every menu and front panel control button feature on most modern contesting transceivers. They can be either embedded within Fkey macros or placed in the programmable button slots at the top of the band map. The latter is the method I use to control my rig via a touch screen tablet running Touch Portal. One limitation is you can only tell N1MM to access the CAT command structure once per activation. Examples of a CAT command are CATASC1xxx and

CATASC2xxx. Hex commands can be used with the slightly different command of CATA1HEXxxx. Steve, N2IC, provides this example to get around the one command limit: {CAT1ASC AB;ST1;SF03;FR00;}. For those who may not be CAT command fluent, Steve's example tells N1MM to open a channel to his radio and send four different radio control commands before closing the allowed one time opening.

- N1MM now has a {SPOTME} macro command to use in ARRL and other contests that allow self-spotting.

Upcoming Contests:

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

SFOTA Current Leaderboard:

Dec-15-2022

Current Leaderboard

2022 OVERALL STANDINGS

	CALL	Contests	CW QSO'S	SSB QSO'S	DIGITAL QSO'S	RTTY QSO'S	TOTAL QSO'S
1)	N4IQ	66	11300	1040	1432	4009	17781
2)	K3DNE	29	1045	8843	582	407	10877
3)	K4FT	105	9875	641	0	166	10682
4)	WN4AFP	81	8388	1796	0	0	10184
5)	KY4ID	120	9339	192	18	169	9718
6)	K4QQG	50	0	8411	0	39	8450
7)	KG4IGC	26	1225	1602	0	3399	6226
8)	N4QI	122	3582	1140	0	1193	5915
9)	AC4MC	38	2826	1828	0	462	5116
10)	K7OM	29	2223	200	32	2564	5019
11)	NU4E	8	2248	1615	38	0	3901
12)	WA2BCK	7	1834	1410	0	0	3244
13)	N4XL	9	1053	1425	0	0	2478
14)	WB5NHL	7	343	531	0	1042	1916
15)	KS4YX	11	408	27	391	1032	1858
16)	N2OG	10	6	686	0	772	1464
17)	KG9V	9	0	955	0	0	955
18)	KN4OQD	6	0	887	0	0	887
19)	NI7R	8	873	2	0	0	875
20)	NE4EA	5	95	632	0	0	727
21)	WB4HRL	1	60	0	0	0	60
22)	AJ4UQ	1	0	0	1	0	1

2022 INDIVIDUAL MODE STANDINGS

CALL	CW QSO'S
N4IQ	11300
K4FT	9875
KY4ID	9339
WN4AFP	8388
N4QI	3582
AC4MC	2826
NU4E	2248
K7OM	2223
WA2BCK	1834
KG4IGC	1225
N4XL	1053
K3DNE	1045
NI7R	873
KS4YX	408
WB5NHL	343
NE4EA	95
WB4HRL	60
N2OG	6

CALL	SSB QSO'S
K3DNE	8843
K4QQG	8411
AC4MC	1828
WN4AFP	1796
NU4E	1615
KG4IGC	1602
N4XL	1425
WA2BCK	1410
N4QI	1140
N4IQ	1040
KG9V	955
KN4OQD	887
N2OG	686
K4FT	641
NE4EA	632
WB5NHL	531
K7OM	200
KY4ID	192
KS4YX	27
NI7R	2

CALL	DIGITAL QSO'S
N4IQ	1432
K3DNE	582
KS4YX	391
NU4E	38
K7OM	32
KY4ID	18
AJ4UQ	1

CALL	RTTY QSO'S
N4IQ	4009
KG4IGC	3399
K7OM	2564
N4QI	1193
WB5NHL	1042
KS4YX	1032
N2OG	772
AC4MC	462
K3DNE	407
KY4ID	169
K4FT	166
K4QQG	39

3830 Activity:

Contest	Call	Class	Power	Score
ARRL 10				
12/14/2022	AC4MC	SO CW	HP	2,040
12/11/2022	K3DNE	SO Mixed Unlimited	HP	682,420
12/12/2022	K4FT	SO CW	LP	165,240
12/12/2022	K4QQG	SO SSB	HP	67,000
12/14/2022	K7OM	SO CW	HP	55,440
12/13/2022	KG4IGC	SO Mixed Unlimited	LP	92,568
12/11/2022	KG9V	SO SSB	HP	41,140
12/11/2022	KM4WPR	M/S	LP	13,344
	(NE4EA,@KM4WPR)			
12/11/2022	KS4YX	SO CW	QRP	25,480
12/13/2022	KY4ID	SO CW Unlimited	LP	8,496
12/12/2022	N4IQ	SO Mixed Unlimited	HP	138,804
12/11/2022	N4QI	SO Mixed	LP	52,002
12/11/2022	N4XL (KY4GM,@N4XL)	M/S	LP	80,400
12/12/2022	NU4E	SO Mixed Unlimited	HP	131,376
12/12/2022	WN4AFP	SO Mixed Unlimited	LP	148,608
ARRL 160				
12/4/2022	K4FT	Single Op	LP	60,450
12/5/2022	K7OM	Single Op	HP	18,533
12/4/2022	KB1QU	Single Op	HP	21,780
12/4/2022	KY4ID	SO Unlimited	LP	21,726
12/4/2022	NU4E	SO Unlimited	HP	52,693
12/4/2022	WN4AFP	Single Op	LP	520
CQWW CW				
11/27/2022	K3DNE	SO(A)SB15	HP	35,802
11/28/2022	K4FT	SO(A)AB	LP	723,800
11/28/2022	K7OM	SOAB	HP	163,728
11/29/2022	KG4IGC	SO(A)AB	LP	175,780
11/28/2022	KY4ID	SO(A)AB Rookie	LP	743,298
11/29/2022	N4IQ	SO(A)AB	HP	1,536,675
11/28/2022	N4QI	SO(A)AB	LP	119,145
11/28/2022	N4XL	SO(A)AB	LP	1,557,246
11/27/2022	NU4E	SO(A)AB	HP	2,388,852
11/29/2022	WN4AFP	SO(A)AB	LP	890,060

FT RUp				
12/4/2022	N4IQ	SO Unlimited	LP	21,770
LZ DX				
11/21/2022	N4QI	SOSB/20	LP	232
SS SSB				
11/21/2022	K3DNE	SO Unlimited	HP	203,784
11/21/2022	K4FT	SO Unlimited	LP	19,650
11/21/2022	K4QQG	SO Unlimited	HP	67,624
11/21/2022	KG9V	Single Op	HP	41,800
11/21/2022	N4QI	Single Op	LP	10,100
11/21/2022	NU4E	SO Unlimited	HP	72,240
11/21/2022	WA2BCK	Single Op	HP	153,340
11/21/2022	WN4AFP	Single Op	LP	32,558
WAE RTTY				
11/15/2022	K4FT	Single Op	LP	7,676
11/15/2022	KG4IGC	Single Op	LP	279,763
11/16/2022	N2OG	Single Op	LP	51,300

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73 es QRT de N4XL