



April 2025

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

Contest Tips:

SFCG Member Tips	
Tip	From
Make sure to accurately log your QSOs.	WN4AFP
You don't have to run up a big score all the time. The State QSO Party challenge is a great example. There is an award for working all the approved state QSO parties. If you have other things to do that weekend, get on and get a minimum of 2 contacts, submit them and do what needs to be done.	KZ3P
You don't have to have 1500 watts to play. I worked Hawaii, Kansas, and Ohio last weekend with <100 watts. I managed 13 contacts with Hawaii. (that was every station I heard).	KZ3P
You don't have to win the contest to enjoy it. Compete with operators near you with similar stations. (type of radio/type and height of antennas/etc)	KZ3P

VHF Contesting. Moving the antenna with narrower patterns than HF can make a huge difference - keep rocking the rotor to peak a signal that may be weak. Know the maidenhead grid square system - hear a station from EL98 - turn south (it's in FL) - I print and keep a copy of a grid square map handy.	K3DNE
VHF Contesting. Check out dxmaps.com, click on the appropriate band to see propagation paths, monitor the Hepburn Tropo Forecast at https://www.dxinfocentre.com/tropo.html and real time paths at https://vhf.dxview.org/ .	K3DNE
If you are operating in a Multi-op contest, as a courtesy, be sure to OPON for the next operator. You don't want to claim his contacts when he forgets his OPON. (I frequently forget OPON.)	N4IQ
Be sure to feed the dog and kiss the XYL for being tolerant of your hobby.	N4IQ
Having a second antenna makes a huge difference. Switching is faster than rotating, a triband beam and a triband GP go good together or a second beam (specially on VHF and above).	NU4E
Lowband RX antenna - don't have to be complicated or complex, a single Loop or 2 K9AY's, BOG are cheap, easy to build and don't require lots of space. Specially in SSB it makes a huge difference to me to not hear the big QRM from my TX antenna all the time, less tiring.	NU4E
Write down a Lessons Learned list after every contest. Don't just think about it. Write (or type) it out. Preferably immediately after, but within a day if you can't. The longer you wait the more you'll forget. Think back to what worked well and what didn't. Use that list for continuous improvement.	N4XL
Unless you're a mutant you won't win a competitive category your first time out. Nor the 20th time trying. Before each contest look over your Lessons Learned list. Pick one or two operating related things you need to improve on. Write a word or two on the note and stick it in a place you can't miss it while operating to remind you during the contest. You're eyes will wander while operating. You'll see them. Examples might be: "Run!", "Spots Lie", "JA 0200 on 15". Only do a couple. Once you've got improvement concept mastered, choose another.	N4XL
If you really want to win, don't focus on doing so early in your career. Your job at that point is to learn how the people at the top got there. Spend those earlier contests trying different things and discover what "secrets" work best for you. N6RO said "The best of the best gained their winning edge practicing the basics over and over in numerous forgettable events, often using inadequate radios and second-rate antennas. Discovering how to overcome such obstacles are lessons never forgotten."	N4XL

Contesting Do's & Don'ts

Compliments of the Florida Contest Group

Do's during the Contest

- Start on time
- Send your full call when calling another station...no partial calls

- Be Quick!!!! Avoid time-wasting words, comments or conversations
- When running gets slow, turn the key speed down. If on phone get the "friendly voice" out.
- Don't be a packet rat. Listen for the guy's call; don't just log him from the cluster. It will save you from a busted Q or taking 10 minutes to work a dupe.
- 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 your 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.

Don'ts during the Contest

- Don't send or say any unnecessary words or comments
- Don't send "UR" or "NR" in Sweepstakes
- Don't send "BK"
- Don't say "please copy"
- Don't say "good luck in the contest"
- Don't say "good luck in Field Day" (Yes, we know that FD is not a contest!)

Highlights From The Reflector:

- Herschel KA2G finally solved his 160 meter power problem. He wrote, "Seems like my 6 meter and my 160 meter problem were both the same cause - something in line does not like the frequency range. The internal tuner on my '5000 tunes my doublet just fine and I just ignore what the external meter shows (infinity)." He has made dozens of contacts on 160.
- Alan W4ANT has returned to State QSO Party contests. Thanks for helping the group out Alan.
- Many of us are enjoying the W1DED podcasts. Information is both entertaining and useful.
- Dave WN4AFP posted his 2024 CQMM DX Contest #1 in US (#2 in NA) certificate.
- Alan asked if anyone knows John KT4OO. Alan found John posted he intends to work the SSB Sprint. Alan sent him a cold recruitment email, but we haven't heard if John responded.
- Alan W4ANT is having problem on 40 from S9 line noise on the band. Hope you get that issue solved Alan.

- Alan W4ANT has been an active poster this last month. He reminded everyone about using QScope's log analysis tool. It's another tool to help improve your contests scores. You can view other people's logs using it too.
- Gary W4EEY used his new IC7760 for the CQ WPX. Check out his after action comments in post 30342.
- Kevan N4XL has been fighting some physical issues that keeps him from having enough BIC time to be competitive. Things are improving, but not fast enough for him.
- John W7WZ and Kevan N4XL are using Stream Deck devices to help automate contesting. N1MM has put quite a bit of effort into integrating those thingy's into his logging software and they have become quite handy.
- It's good to hear people are taking pre-contest steps to keep Mr. Murphy away. More are posting about testing their stations and solving problems before the contest.
- Several people are thankful N1MM put the shortcut CTRL+U into contests using sequential serial numbers in the exchange.
- Chip KB1QU needs to check for a loose wire in his throat. He wrote, "I have a cold with laryngitis. Stations kept telling me that my signal was breaking up. Uh uh. I would try to time my coughs for when the voice macros were playing but I had way too many vox coughs on air."
- Craig W8CS joined in on the CQ WPX SSB fun and posted a fine score. Thanks for joining the group Craig.
- John W7WZ had the contest team at his station for the CQ WPX SSB. They used the call AA4VT and posted a great claimed score of 18,175,626. The team consisted of AA4VT, WN4AFP, KD4D, K3DNE, KG9V, and AA5JF. Great job folks.
- There was a lot of talk about the Worked all Massachusetts award.
- Dave WN4AFP said the SFCG is #2 in the State QSO Party Challenge. Let's keep entering those QP's!
- We're sorry to hear Ford KK4MRG will be QRX (standing by) regarding contesting for a while. Ops have offered their stations to Ford so he doesn't suffer complete withdrawal.
- Herschel KA2G has had a fun time navigating tower installation obstacles but it is finally up. Congratulations! As he found out, towers seem fairly simple to erect until you encounter the details. You'll love the result though.
- Many of us are receiving more and more automated electronic QSL cards. Some respond, others don't. This Editor tried to set myself up in eQSL but couldn't get support so gave up and now ignores them.

- Herschel KA2G is the proud builder/owner of a fold over tower. What a learning trek he's been through. Thanks for letting us watch from the sidelines. Have fun!
- People are still having fun on 6 meters.
- Dave WN4AFP finally put in enough BIC time for the New England QSO Party that he hauled in a First Place USA – Outside New England SOLP. Congratulations Dave!
- Dave WN4AFP also managed to talk the Florida QP folks into creating a new plaque category. This one is specifically for us folks here in W4 land. We're too close and can't really compete on anywhere near a level playing field.
- There was a discussion about burning up baluns. Dave WB5NHL shared an excellent link from Balun Designs about the subject.

Internal or External Antenna Tuners? Do All Tuners Match Equally?

By Kevan N4XL

To consistently get the strongest transmitted signal you should use resonant antennas rather than an antenna tuner. Although tuners can often obtain a match they add loss into your antenna system while doing so. That's mainly due to the inductance they add to obtain a match. Under most conditions where hams think a tuner is needed, that loss can easily exceed the benefits they had hoped to obtain by getting that 1:1 match. They would have been much better off by using a resonant antenna instead of taking the easy way and buying a tuner. Despite that, there are times when you might want to use one anyway. This article contains some less widely known information about tuners.

Although the following observations came from a TS-590 reflector the information clearly applies to other brands too. The thread started with the question, "Is there a way to disable the TS-590s internal tuner and still [send] a tune carrier for an external tuner?" It was mentioned in the thread that many tuners sense the frequency of the transmitted RF and automatically adjust their L-C circuits for a match, but this operator wanted to first manually send a low power signal to let the autotuner adjust before he sent full power to it.

Ryuui Suzuki AB1WX wrote:

TS-590's internal tuner is a T-network tuner, whose capability is not symmetrical in the load impedance around 50 ohm. So, specifying its capability by SWR is misleading at best, so I suppose the catalog spec is written conservatively.

If anyone says it'll match up to the SWR of such and such all the time, you can assume that person is over-generalizing their empirical knowledge (unaware of the asymmetric capability), and it may not apply to you.

T-match tuner (TS590's internal tuner) is good at higher load impedance but not very good at the low impedance side, particularly on low bands. That statement is true for both match capability and the insertion loss when a match is found. When I use antennas of higher impedance, my TS590 tunes SWR much higher than 3 easily. But it fails to tune low impedance antennas of SWR > 3 on 80m and 160m.

Quality external ATUs based on L-network are superior in terms of insertion loss and probably match capability, if the component quality is comparable to those used in the TS590 internal tuner, and the circuit design and engineering are solid. Again, the bigger differences would be with low-impedance antennas and low bands.

Another advantage of an external tuner, especially when placed right at the antenna's feed point is a lower total loss because the coax loss will increase significantly when pre-tuner SWR is high. When using an internal tuner (or an external tuner at the operating position rather than the antenna feedpoint), it is usually a good idea to put a transformer at the antenna feedpoint to adjust the impedance coarsely to mitigate this loss. If the transformer is well designed and implemented, this can save the total loss.

(Editor's Note: Regarding Ryuji's observation the TS590's internal tuner doesn't match as well on 80 and 160. Generally, hams use antennas that are too short (compared to wavelength) on the low bands requiring the tuner to add more inductance. Higher value inductors are often larger in size. It's supposition on my part, but internal and automatic tuner manufacturers trying to keep devices smaller and cheaper do not include higher inductance components, so they are unable to match shorter antennas – which is why the TS590 tuner fails to match well on 80 and 160. Also, the ARRL reports tuner losses are higher when more inductance must be added. Thus, my advice that if an antenna tuner, or matching network, is to be used I like to make the antenna longer rather than shorter.)

Willi DK6DT suggested a product that plugs into the back of the TS590:

On my TS-590SG, I have inserted the Tunerite plug from Wimo (<https://www.wimo.com/en/tunerite-kw>) into the connection socket for external

Kenwood tuners. This allows you to tune any external automatic antenna tuner in the same convenient way as with the internal auto tuner.

Gary K7EK observed:

And you must still physically push the radio tuner button to engage the tuner, unless the external tuner in question has the capability of RF actuation.

Ryuji evidently continued to ponder the topic because he added this. It seems a bit out of context from the original question but is nevertheless interesting and explains something I've seen before, which is an automatic antenna tuner trying endlessly to find a match without giving up and finally stops trying and ends the tuning cycle. He wrote:

TS590 has a tandem bridge to sense forward and reflected waves, which is enough to detect SWR but not enough to tell what the actual load impedance is, or whether the T-network can match the load. So, there are many load impedances where the tuner continues to seek tuning (and fails) without immediately triggering the SWR error.

In a situation like your longwire, the antenna impedance will vary wildly between bands. It may be reliable on 80m (assuming a set of few elevated radials or many buried radials) but on other bands, the length of the coax will play an important role. What the internal tuner cares about is the load impedance at its location, and the coax will function as a band-dependent transformer on most bands. That challenge is best dealt with by moving the tuner to the antenna feedpoint, or at least using a variable-tap transformer at the feedpoint when on bands other than 80m.

One good way to understand the antenna's multi-band behavior and design a good feeding/matching setup is to first measure the complex impedance across all bands of interest using a nanoVNA or something similar.

Paul, the original poster, wrote:

I checked on the TuneRite device Willi mentioned, and though it would only cost about \$19 (17.60 Euros), the shipping would be about \$37 USD!

At that point Tim WS4V spoke up. In two different posts he wrote

You might also search past posts. I seem to recall someone mentioning how to do the same thing as the TuneRite device using a plug and one or two discrete components.

~and~

According to a prior post, for those who wish to do the same thing as the Tunerite plug, you can easily build an adapter to plug into the external AT socket on the rear of the rig. You need to install a 1K, 1/4W resistor between pins 2 (TT) and 5 (TS) of a matching plug. Plug it in to the AT connector and when you long press the Tune button the rig will generate a 10W carrier. Long press the Tune button again and it turns off the carrier. The plug has to be in place when the rig is powered on for it to be recognized.

I know you can do the same thing by programming a button, but some people may prefer to use the Tune button on the rig or may already be using all the programmable buttons for other functions.

Here is a link to the original post about the adapter plug: <https://groups.io/g/TS-590/message/43157>

Also mentioned in that thread are the part numbers for the plug and pins:

Connector Housing
Manufacturer: JST
Part Number: ELP-06V

Contacts:
Manufacturer: JST
Part Number: SLF-01T-1.3E

As of April 5th the thread ended with Paul reporting:

And now ... the rest of the story ...

The TuneRite device was only about \$17 USD, but the shipping was \$35 USD - so that was a pass for me. DXEngineering is a local dealer for the TuneRite merchant but DXEngineering doesn't carry that product.

In this thread and at least one other, there was a suggestion to jumper pins 2 and 5 with a 1K, 1/4W resistor on the Molex 6-pin connector where a Kenwood brand external tuner would attach.

That fools the TS-590s into thinking there's an external Kenwood tuner, so when you push the tune button, it bypasses the internal tuner and provides 10W to the third-party external tuner.

Works like a charm. I traded a computer mouse for a 1K, 1/4W resistor and bought a 6-pin (with connectors) Molex plug off eBay. A few minutes of soldering

- considering this plug will be a semi-permanent fixture on the 590s, just crimping would probably have worked as well - and I have my own "homebrew" TuneRite plug.

Now Push and Hold on the Tune Button does what the manual says it does - sends a reduced power signal to the external tuner and does not activate the internal tune

What this thread means to me is you do not necessarily need an automatic antenna tuner that is dedicated to work with a particular brand of radio. Several times over the years I've heard people saying they couldn't use a general use LDG, MFJ, or SDG type antenna tuner because it wouldn't tune when they pressed the tune button on their particular radio. Some smart hams figured out how they can. This provides a way for those who are uncomfortable with having to provide full power RF to an external tuner for it to provide a match (and have the tuner disconnect the antenna for a few milliseconds while it adjusts its internal components) can first manually send a lower power RF signal to it.



KB4DX Tower Work

John W7WZ is continuing to improve his contest station. He replaced the IC7610 with an Icom 7850. The IC7850 is identical to the IC7851 except for some external trim color and a commemorative plate on the 7850. The other station rig is a Yaesu FTdx101MP. John and Andy AA5JF did some tower work last week. They replaced the top rotor and troubleshot the ring rotor of the middle antenna. The station is coming along nicely. Thank you to those SFCG members supporting John with building and operating his station.

Figure 1 Andy AA5JF at 90' and John W7WZ at 60'

Observations by the Editor:

- Awhile back, Microsoft took over another competitor. They bought Skype and are shutting it down next month (May). Many ops on the RSGBTechnical reflector aren't happy. They suggested these being possible replacements. I've never used Skype and have never heard of a couple of these so have can't comment on their pros and cons, but thought I'd pass it on for those who do. Viber, WhatsApp, Microsoft Teams, Zoom, Google Meet, Whereby, apps on your smart phone, Teamtalk, JITSI Meet, and Cisco Webex.
- Several radio models use drivers from Silicon Labs to establish COM port communications. We've talked about this before regarding the Kenwood TS-590, but it affects other radios too. This first cropped up September 2024. Since then, I've

wondered what happens if more than one piece of equipment in your shack uses that driver. Hmmm... From the N1MM+ reflector...

Charlly, in message 91913:

n1mm cannot communicate with the radio via the COM port, it reports that the "COM8 is not functioning", the same port with the same settings in the JTDX software works perfectly, has anyone experienced something similar?

I attached photos of the N1MM configuration and the error it presents and the same JTDX configuration works correctly.

My Windows 10 PC is fully updated, including all drivers

Rich VE3KI:

If that radio uses a Silicon Labs driver for its USB ports, there have been problems with recent versions of the Silicon Labs drivers that apparently make the ports invisible to, or at least not working correctly with, some (but not all) programs, depending on the programming language and environment that the program was written in. This would be consistent with your reported symptoms, as JTDX and N1MM+ were written in different programming languages. The solution is to change the driver to an older version that works - your best bet would be the driver from the radio manufacturer's website, NOT the latest driver from the Silicon Labs website. See message #87276 in this group.

Steve N2IC in message 87276:

DO NOT use the driver off the Silicon Labs website, no matter how new it is. Your symptoms are still indicative of the bad driver issue. Even though it's a Yaesu, I recommend following the instructions at https://www.kenwood.com/i/products/info/amateur/vcp_e.html, and using the Kenwood-recommended driver at the bottom of the link.

BTW, I have both a TS-590S and an FTDX101

I read somewhere the Silicon Driver has since been "fixed" and works with more devices, but this issue is still something to keep in mind if your COM port(s) suddenly stop working.

- The meter face on my cross-needle analog CN-465 Daiwa 140-450 MHz SWR/Watt meter had built up a static charge. Whenever I touched the meter face the two

needles would move toward my finger and sometimes stick giving false readings. YouTube to the rescue. Fabric softener is anti-static. The guy in the first video took his meter apart, poured a little Fabric Softener on a cloth and polished both sides of the meter face. Sure enough, his meter didn't exhibit static anymore. I didn't like the idea of taking my meter apart so looked at another video. I liked how the second man does it. He wiped a dryer sheet around the entire external side of the meter face. That worked like a charm for the two meters in his video and my CN-465. No dismantling required.

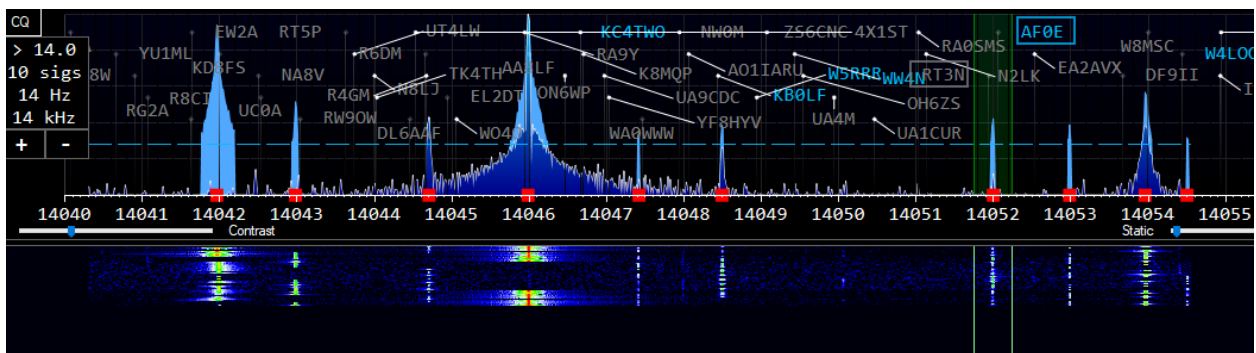
- I always enjoy reading the creative April 1st stories Hams come up with. A couple I hadn't heard before this year.
 - N7JI: A long time ago, ARRL had a cover story about an injectable, RF-activated dye. You would simply inject it into your coax, it would travel through the coax and to the antenna, and create a false-colored cloud that represented your antenna pattern, triggered by the RF.
 - KK0U: My favorite wasn't a product, and it was very subtle. Back in the day when the QST Classifieds were still filled with radio stuff, there was one in an April issue that simply stated: "Wanted to Buy: Civil War and Pre-Civil War radio sets."
 - WT9Q: The QST April Fools product that got me was in 1999. I was a new ham. I read an article in QST. There was a new antenna that contained a laser beam and the beam could carry your signal. Turning the knob would lengthen or shorten the beam so you could exactly tune to any frequency and get a 1:1 SWR. I shared the theory of this wonderful invention as I was driving to work during the morning commute on a popular repeater.
 - James: A very useful one to decrease loss in transmission lines:
 - Place a coil of RG8X in a large tub
 - Cover with water
 - Stir in a bottle of Viagra pills
 - Wait 1 hour
 - Drain water
 - You will now have a coil of 3/4" hardline
 - Caution: Benefits are only good for this day

N1MM+ Tips:

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

- Selected changes made since the last newsletter. (NOTE: These often come from a user requesting a change or fix to a problem.)
 - Several changes and new macro commands were created dealing with how N1MM handles finding and playing .wav files. This is focused primarily on how they are located when operators at multi stations tell N1MM they, instead of a teammate, are at the control station. The summary explanations are complicated. If you use .wav files in N1MM, I recommend reading the April 8, 2025 update summary whether or not you at a multi operation. New macros are {WAVDIR} and {SETWAVDIR}. Changes were also made with execution time of .wav files and concatenate settings, and automatic program to reset where .wav files if certain conditions are met was discussed. You might want to know about such things if you use .wav files. I plan to carefully test things before entering my next voice contest.
 - SO2R: Fixed Shift-Alt-A when SO2R and 1 AMQ open
 - CQ VHF Contests: Split into two contests, CW/Phone and Digital only. Use "CQWWVHF" selection for both contests. The exchange and scoring is identical. Changes made to enable self-spotting and contest start/stop times (N2NC)
 - Changed default SelfSpot time to 10 minutes for consistency with other logging programs. (Coded by N2IC)
 - (From 3/11/2025 update) Available Window: Added new option for left click to always send spot to associated radio. **Warning - use of this option can allow both radios to be on the same band.** (HA5JI) (Coded by N2IC)

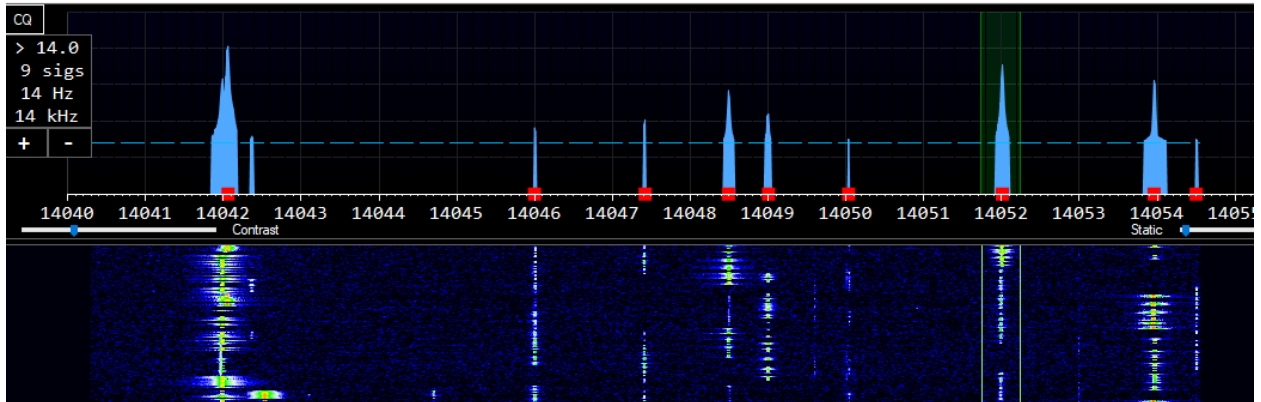
- The Spectrum Window can become quite crowded with distractions. I want information to help make decisions. But sometimes too much information can make things worse. The Three Mile Island nuclear disaster is a case in point. Too many alarms happened simultaneously. A significant factor contributing to the severity of the damage was the Control Room operators were overwhelmed by dozens of alarms. One report I read said over a hundred buzzers and red lights across multiple panels happened at the same time. The cacophony of noise and visual distractions caused information overload and prevented them from focusing on the critical indicators. Thus they did not quickly make the swift and accurate decisions needed to protect the plant.



Above is a screen shot of what I typically see. Actually, this one is less crowded than usual. Although vertical orientation would eliminate some of those white lines from call signs to white dots, I prefer a horizontal to visual arrangement since the bottom of my screen is filled up horizontally with N1MM windows I use more often than the Spectrum Display. I don't have room for a vertical Spectrum Window.

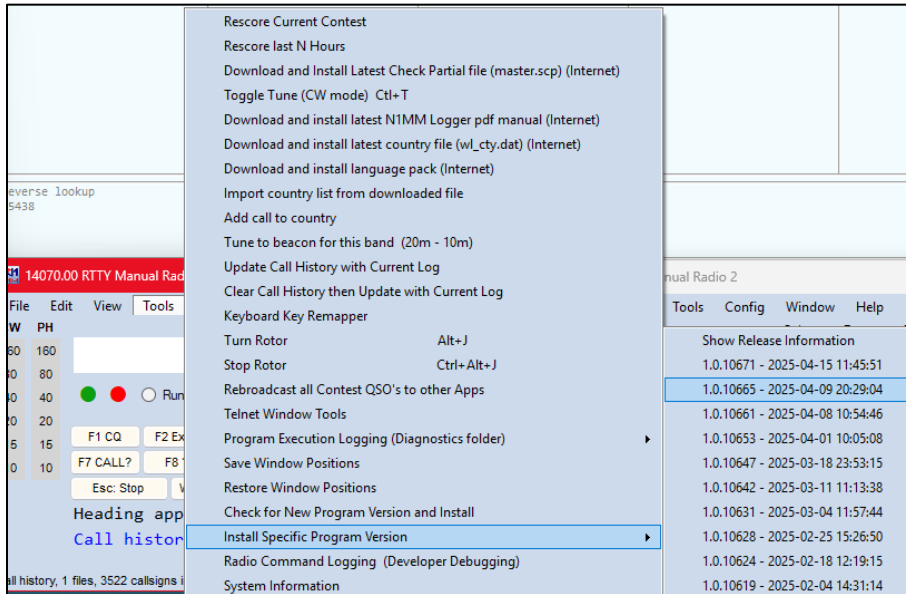
For those not familiar, let me explain what is being shown. The top part of the display shows signals in real time. The bottom is the waterfall showing what happened several seconds ago. Both help you find signals to work. The bottom is easy. Look for a trace. Someone is transmitting there. The brighter it is the stronger their signal. The top is more complicated. Gray calls have either already been worked or are stations not eligible for the current contest. Blue (or green or red) calls are needed stations. On the right AF0E has a larger font and has a box around it. That indicates my rig is currently tuned to her. The top part signals themselves. The dark blue part indicates instantaneous signal strength. The light blue is how strong it was just a couple/few seconds ago. You can adjust the decay speed. I use slow. The dotted blue line is a thresh hold setting. Any signal strong enough to indicate above that line, that has NOT been worked, generates a red square. You can use shortcut keys to have N1MM jump from red square to red square reducing the time it takes

to tune in an unworked station. If the dotted blue line is too high you skip over weaker unworked stations. Too high you pick up too much unworkable stuff or QRN/QRM. There are many settings to choose from to make that window more, or less, useful.



During the Michigan QSO party I experimented a bit with simplifying my display. I removed the unworkable stations. I had left them in before so when using the VFO I didn't waste time identifying if I had worked them before. During less active contests like QP's that isn't as important as it is during 48 hour worldwide events. I can't ever remember finding it useful to differentiate between the light and dark blue of a found signal. Having the call sign in that window meant little since N1MM knows what's there (it had to to put the red square on that frequency) and when I jump to a red square the call is automatically placed in the Entry Window above the call sign field – and I always have a Band Map window open too and it shows the call sign(s) there too. I didn't find much of a need to have the call signs there when turning the VFO either. At least not for a QP where there are far fewer signals to tune across than during something like the CQWW.

- Instead of making your contesting life easier, installing an update to N1MM instead breaks things. Crap, darn, dang, etc. Those helpful brains on the N1MM reflector say things like “Is it still broke when you go back to the previous version?” That sounds like such a simple and obvious thing to check, but how do you do that? Tools>Install Specific Program Version>(choose your previous version)



Upcoming Contests:

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

SFOTA Current Leaderboard:

Apr-22-2025

Current Leaderboard

2025 OVERALL STANDINGS

CALL	Contests	CW QSO'S	SSB QSO'S	DIGITAL QSO'S	RTTY QSO'S	TOTAL QSO'S
1) WB4HRL	138	7067	454	0	520	8041
2) WN4AFP	55	3981	2801	43	0	6825
3) K3DNE	19	777	5499	84	0	6380
4) KE4EA	78	4942	1108	15	0	6083
5) N4IQ	30	4273	435	11	0	4719
6) K4QQG	21	0	3049	1	802	3852
7) K4FT	42	3107	201	0	138	3444
8) KZ3P	26	922	1377	18	414	2731
9) W4ANT	40	1008	1440	2	0	2450
10) KD4S	37	1607	123	16	461	2207
11) KG4IGC	5	570	438	0	1085	2093
12) AA5JF	3	1394	352	0	0	1746
13) K7OM	10	449	0	0	1157	1608
14) KB1QU	4	612	565	0	376	1553
15) N4XL	10	704	691	0	0	1395
16) KS4YX	20	358	40	221	580	1199
17) KA2G	14	0	966	0	0	966
18) WA4LDU	22	156	257	165	338	918
19) KK4MRG	18	0	846	18	27	891
20) N4QI	27	595	184	0	67	826
21) W1RPG	6	0	623	0	6	629
22) NV4T	10	0	603	2	0	605
23) NI7R	4	564	0	0	0	564
24) K2SX	10	362	0	0	0	362
25) AA4SD	5	325	0	0	0	325
26) N1UZ	3	88	0	0	215	303
27) KS4VJ	4	0	42	49	0	91

2025 INDIVIDUAL MODE STANDINGS

CALL	CW QSO'S	CALL	SSB QSO'S	CALL	DIGITAL QSO'S	CALL	RTTY QSO'S
WB4HRL	7067	K3DNE	5499	KS4YX	221	K7OM	1157
KE4EA	4942	K4QQG	3049	WA4LDU	165	KG4IGC	1085
N4IQ	4273	WN4AFP	2801	K3DNE	84	K4QQG	802
WN4AFP	3981	W4ANT	1440	KS4VJ	49	KS4YX	580
K4FT	3107	KZ3P	1377	WN4AFP	43	WB4HRL	520
KD4S	1607	KE4EA	1108	KK4MRG	18	KD4S	461
AA5JF	1394	KA2G	966	KZ3P	18	KZ3P	414
W4ANT	1008	KK4MRG	846	KD4S	16	KB1QU	376
KZ3P	922	N4XL	691	KE4EA	15	WA4LDU	338
K3DNE	777	W1RPG	623	N4IQ	11	N1UZ	215
N4XL	704	NV4T	603	W4ANT	2	K4FT	138
KB1QU	612	KB1QU	565	NV4T	2	N4QI	67
N4QI	595	WB4HRL	454	K4QQG	1	KK4MRG	27
KG4IGC	570	KG4IGC	438			W1RPG	6
NI7R	564	N4IQ	435				
K7OM	449	AA5JF	352				
K2SX	362	WA4LDU	257				
KS4YX	358	K4FT	201				
AA4SD	325	N4QI	164				
WA4LDU	156	KD4S	123				
N1UZ	88	KS4VJ	42				
		KS4YX	40				

3830 Activity:

Contest	Call	Class	Pwr	Score
144SprngSprnt				
04/15/25	K3DNE	Single Op	HP	442
04/16/25	WA4LDU	Single Op	LP	150
CQMM DX				
04/20/25	K2SX	SOAB	LP	3,618
04/20/25	N4QI	SOAB	LP	8,160
EA RTTY				
04/10/25	K7OM	SOAB	HP	4,293
GaQP				
04/14/25	K3DNE	Single OpSSB	HP	16
04/14/25	K4FT	Single OpCW	LP	1,550
04/14/25	KD4S	Single OpMixed	HP	12,922
04/17/25	KE4EA	Single OpMixed	LP	1,242
04/14/25	KZ3P	Single OpMixed	HP	8,990
04/14/25	N2ZZ	Single OpMixed	HP	1,225
04/14/25	N4IQ	Single OpMixed	HP	264
04/14/25	N4QI	Single OpMixed	LP	480
04/13/25	NV4T	Single OpSSB	LP	609
04/16/25	W4ANT	Single OpSSB	LP	3,256
04/14/25	WA4LDU	Single OpMixed	LP	672
04/14/25	WB4HRL	Single OpMixed	LP	8,910
04/14/25	WN4AFP	Single OpCW	LP	15,096
IG-RY RTTY				
04/13/25	K7OM	Single Op	HP	1,024
LaQP				
04/06/25	AA5JF	Fixed Mixed	HP	334

Contest	Call	Class	Pwr	Score
04/07/25	K4FT	Fixed CW/Dig Wires	LP	140
04/06/25	K4QQG	Fixed SSB TB-Wires	HP	84
04/07/25	KB1QU	Fixed SSB	HP	32
04/06/25	KD4S	Fixed Mixed Wires	HP	120
04/06/25	KZ3P	Fixed Mixed TB-Wires	LP	292
04/06/25	N2ZZ	Fixed Mixed	HP	60
04/06/25	N4IQ	Fixed Mixed Wires	HP	96
04/06/25	N4QI	Fixed Mixed	LP	240
04/06/25	NV4T	Fixed SSB	LP	98
04/07/25	W4ANT	Fixed CW/Dig TB-Wire	HP	16
04/07/25	WB4HRL	Fixed Mixed Wires	LP	120
04/06/25	WN4AFP	Fixed Mixed Wires	LP	828
MiQP				
04/20/25	AA5JF	Single Op	HP	3,234
04/20/25	K4FT	Single Op	LP	2,200
04/20/25	K4QQG	Single Op	HP	192
04/20/25	KA2G	Single Op	HP	170
04/20/25	KD4S	Single Op	HP	648
04/20/25	KZ3P	Single Op	HP	2,752
04/20/25	N2ZZ	Single Op	HP	24
04/21/25	N4IQ	Single Op	HP	3,885
04/20/25	N4QI	Single Op	LP	104
04/20/25	N4XL	Single Op	LP	15,252
04/21/25	NI7R	Single Op	LP	96
04/20/25	NV4T	Single Op	LP	90
04/21/25	W4ANT	Single Op	LP	9
04/21/25	WB4HRL	Single Op	LP	1,050
04/21/25	WN4AFP	Single Op	LP	2,117
MoQP				
04/07/25	AA5JF	SO Fixed	HP	3,044
04/07/25	K4FT	SO Fixed	LP	2,400
04/06/25	K4QQG	SO Fixed	HP	494
04/07/25	KB1QU	SO Fixed	HP	231
04/06/25	KD4S	SO Fixed	HP	3,036

Contest	Call	Class	Pwr	Score
04/08/25	KE4EA	SO Fixed	LP	987
04/06/25	KZ3P	SO Fixed	LP	6,392
04/06/25	N2ZZ	SO Fixed	HP	1,736
04/06/25	N4IQ	SO Fixed	HP	11,595
04/06/25	N4QI	SO Fixed	LP	692
04/06/25	N4XL	SO Fixed	LP	198
04/06/25	NV4T	SO Fixed	LP	456
04/07/25	W4ANT	SO Fixed	HP	112
04/06/25	WA4LDU	SO Fixed	LP	80
04/07/25	WB4HRL	SO Fixed	LP	2,200
04/07/25	WN4AFP	SO Fixed	LP	17,566
MSQP				
04/06/25	AA5JF	Single Op	HP	161
04/07/25	K4FT	Single Op	LP	80
04/06/25	K4QQG	Single Op	HP	110
04/07/25	KB1QU	Single Op	HP	8
04/06/25	KD4S	Single Op	HP	216
04/08/25	KE4EA	Single Op	LP	20
04/06/25	KZ3P	Single Op	LP	192
04/06/25	N2ZZ	Single Op	HP	35
04/08/25	N4IQ	Single Op	HP	1,368
04/06/25	N4QI	Single Op	LP	55
04/06/25	NV4T	Single Op	LP	99
04/07/25	W4ANT	Single Op	HP	28
04/07/25	WB4HRL	Single Op	LP	161
04/06/25	WN4AFP	Single Op	LP	1,386
NA Sprint SSB March				
03/23/25	K3DNE	Single Op	HP	10,400
03/26/25	KK4MRG	Single Op	LP	1,938
03/23/25	NU4E	Single Op	HP	12,272
03/23/25	W4ANT	Single Op	HP	1,944
03/23/25	W8CS	Single Op	LP	966
NDQP				
04/14/25	AA5JF	Out of State	LP	4
04/14/25	K3DNE	Fixed	HP	2
04/14/25	K4FT	Out of State	LP	4
04/14/25	KD4S	Fixed	HP	21
04/17/25	KE4EA	Out of State	LP	6
04/14/25	KZ3P	Fixed	HP	12

Contest	Call	Class	Pwr	Score
04/13/25	N2ZZ	Fixed	HP	4
04/14/25	N4IQ	Out of State	HP	4
04/14/25	N4QI	Out of State	LP	1
04/13/25	NV4T	Fixed	LP	2
04/16/25	W4ANT	Out of State	LP	8
04/14/25	WA4LDU	Fixed	LP	4
04/13/25	WN4AFP	Fixed	LP	6
NeQP				
04/20/25	AA5JF	Fixed	HP	4,100
04/20/25	K4FT	Out of State	LP	680
04/20/25	K4QQG	Fixed	HP	54
04/20/25	KA2G	Out of State	HP	299
04/20/25	KB1QU	Fixed	HP	12
04/20/25	KZ3P	Fixed	HP	2,652
04/20/25	N2ZZ	Fixed	HP	817
04/21/25	N4IQ	Out of State	HP	434
04/20/25	N4QI	Out of State	LP	156
04/22/25	N4XL	Out of State	LP	36
04/21/25	W4ANT	Out of State	LP	12
04/21/25	WB4HRL	Fixed	LP	180
04/21/25	WN4AFP	Fixed	LP	7,141
NMQP				
04/14/25	AA5JF	Single Op	LP	6
04/14/25	K3DNE	Single Op	HP	15
04/14/25	K4FT	Single Op	LP	520
04/14/25	KD4S	Single Op	HP	690
04/17/25	KE4EA	Single Op	LP	256
04/14/25	KZ3P	Single Op	HP	216
04/13/25	N2ZZ	Single Op	HP	72
04/14/25	N4IQ	Single Op	HP	448
04/14/25	N4QI	Single Op	LP	4
04/13/25	NV4T	Single Op	LP	12
04/16/25	W4ANT	Single Op	LP	252
04/14/25	WA4LDU	Single Op	LP	120
04/14/25	WB4HRL	Single Op	LP	110
04/13/25	WN4AFP	Single Op	LP	1,444
OnQP				
04/21/25	AA5JF	SO CW	HP	1,720
04/20/25	K4FT	SO CW	LP	5,530

Contest	Call	Class	Pwr	Score
04/20/25	K4QQG	SO SSB	HP	200
04/20/25	KA2G	SO SSB	HP	504
04/20/25	KB1QU	SO Mixed	HP	162
04/20/25	KZ3P	SO Mixed	HP	1,387
04/20/25	N2ZZ	SO Mixed	HP	32
04/21/25	N4IQ	SO Mixed	HP	6,696
04/20/25	N4QI	SO Mixed	LP	280
04/22/25	N4XL	SO Mixed	LP	1,083
04/21/25	NI7R	SO CW	LP	80
04/21/25	W4ANT	SO SSB	LP	4
04/21/25	WB4HRL	SO Mixed	LP	1,216
04/21/25	WN4AFP	SO Mixed	LP	2,394
QCQP				
04/20/25	AA5JF	SO Mixed	HP	28
04/20/25	K4FT	SO Mixed	LP	45
04/20/25	K4QQG	SO SSB	HP	12
04/20/25	KA2G	SO SSB	HP	117
04/20/25	KB1QU	SO Mixed	HP	60
04/20/25	KZ3P	SO Mixed	HP	162
04/21/25	N4IQ	SO Mixed	HP	346
04/20/25	N4QI	SO Mixed	LP	28
04/20/25	NV4T	SO SSB	LP	20
04/21/25	W4ANT	SO SSB	LP	4
04/21/25	WB4HRL	SO Mixed	LP	40
04/21/25	WN4AFP	SO Mixed	LP	84
WPX SSB				
04/01/25	AA4VT	M/2	HP	18,175,626
	(AA4VT, WN4AFP, KD4D K3DNE, KG9V, AA5JF, @W7WZ)			
03/31/25	K4QQG	SOAB TB- Wires	HP	473,632
03/30/25	KB1QU	SOAB	HP	273,340
03/31/25	KE4EA	SOAB	LP	182,070
03/31/25	KZ3P	SOAB TB- Wires	HP	225,212
03/31/25	NU4E	SOAB Unassisted Clas	HP	1,122,068
03/30/25	NV4T	SOAB	LP	243,202
03/31/25	W4EEY	SOAB	HP	1,009,757

Contest	Call	Class	Pwr	Score
03/31/25	W4GE(@W5GE)	SOAB TB-Wires	HP	530,502
03/31/25	W8CS	SOAB Unassisted Clas	LP	91,648
03/30/25	WJ4X(@N4XL)	SOAB Classic	LP	730,074

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