

W9JOZ

Volume 12, Issue 12

December 2022

Meeting January 19, 2023 at 7:00 pm.
Knox Community Center.

Fox Hunt on Dec. 12th

2023 Dues are being accepted. Still
\$12.00 per year.



Meetings are at the Knox Community Center on the third Thursday of each month, with the exception of December.

The Community Center is located on the corner of Lake and Pearl Street.



Are you on the air?

QSL CARDS

If you have QSL Cards that need to be checked for an ARRL Award, contact John and he will put you in contact with an ARRL Card Checker in our area. Steve, KD9HL is the card checker.

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Events

Meeting at Knox Community Center

Corner of Pearl and Lake Street

January 19, 2023

Time will be 7:00 pm

Birthdays

KC9PM - Nita Dec. 7

If your birthday has not been listed, it is because I do not have the date for it. If you would like it to be included in a newsletter, please email me the date. Thanks w3ml@w3ml.com

Starke County Amateur Radio Club Weekly 2 Meter Net is on every Saturday at 8:00 p.m. Central time.

DAY OF WEEK: Saturday 8:00 p.m. Central time

HOST: KN9OX Repeater

FREQUENCY: 145.410 - 600

PL TONE: 131.8

For Sale Items

See all the For Sale Items at

<http://www.w9joz.org/forsale.htm>

There are a lot of them there. Updated regularly.

See the For Sale Page on the Club website. If you have items to sell email me a list with prices and contact information.

Notice for 2023

****** Dues for 2023 remain at only \$12.00 a year. ******

Paid Members for 2023:

- 1. David, KC9OBH - President**
- 2 John, W3ML - Secretary/Treasurer**
- 3. Jim, WB9UAR**

Please be a member and pay your dues for 2023. Dues are used to pay for insurance, website, and incorporation fees.

Dues may be mailed to:

**John Poindexter
204 South Main St.
Knox, IN 46534**

Checks can be made out to the Starke County Amateur Radio Club. \$12.00

The Storied History of the Ham Radio Callsign

<https://www.youtube.com/watch?v=Su76QvChuEU&t=6s>

Building a 1920s Tube Amplifier (And Tubes!)

<https://www.youtube.com/watch?v=-UEfqAWb3fE>

Top 10 FT8 Operating Tips

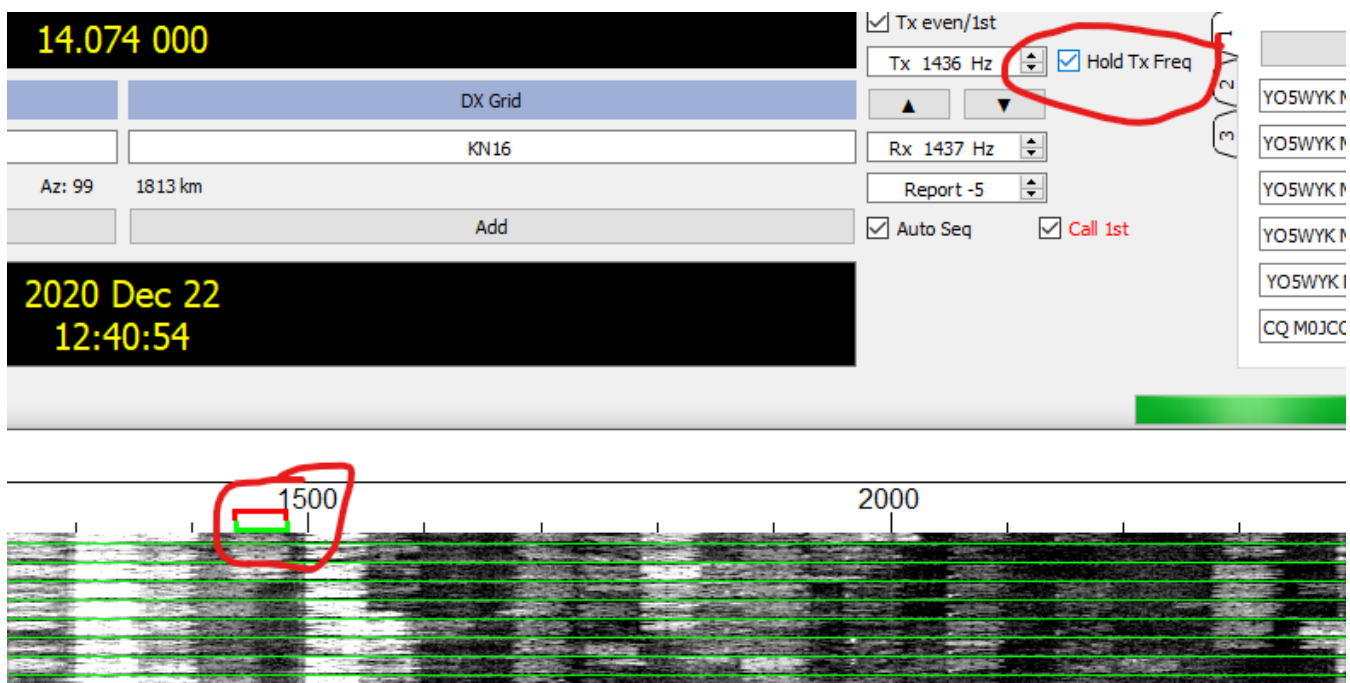
By Jim Stevens-M0JCC

Over the last few years PSK31 and its variants were replaced by a new data mode... FT8. This data mode has truly come to dominate both the HF and VHF bands, to the extent that it's becoming rarer to find much SSB and CW activity, regardless of any other data modes on a given band!

The following tips are comprised of my experience of using FT8 for a few years, since it was first released back in 2017. I've had 3,000+ FT8 contacts across bands from 160m right through to 70cm.

1. Stick to a Single Frequency

This is probably where a lot of beginners go wrong. Try and find a clear frequency and then stick with it, regardless of whether you call CQ or respond to others. The **Hold Tx Freq** option is your friend in WSJT-X:



Hold TX Freq option in WSJT-X

This will ensure that you always transmit in the same place and importantly you don't keep hopping around the band.

Why does this matter? Well, you're more likely to be decoded if you're replying to another station off of his own frequency. If you move to their frequency then you could be competing with other stations.

Also we've all had it, where we're happily running on a frequency, then a station works you and then proceeds to stay there and call CQ on 'your' frequency. It's annoying and typically the other station isn't even aware they're doing it!

2. Time Synchronization is Key

If you've used data modes like RTTY and PSK31 in the past, then you're probably used to random receive and transmit cycles where you click a signal and transmit as soon as the other station has finished.

FT8 (and the other WSJT-X modes) demand perfect timing, so perfect it's beyond most of us to get right! If your computer clock is off by 2 seconds or more, then most likely your signals won't be decoded by others, and no one else will even see your calls!

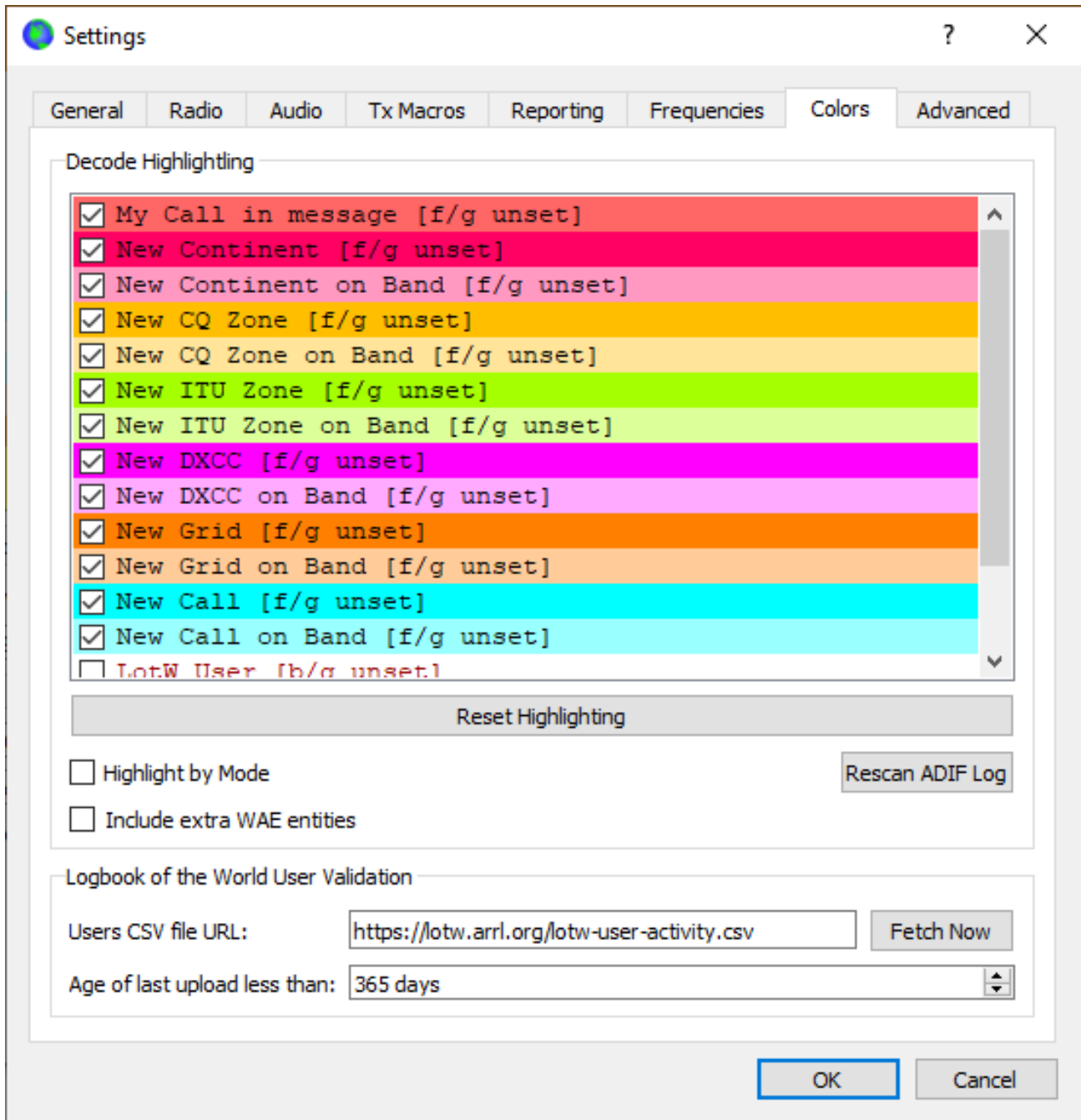
Your native Windows clock is likely to drift very quickly, unless you keep it trained to an accurate clock via the internet. I personally use [Dimension4](#) to do this. It's free and every 30 minutes it automatically synchronises my PC clock with an accurate reference online.

3. Learn the WSJT-X Colour Coding

WSJT-X helpfully colour codes your decoded messages, so you can spot important messages quickly.

If a new DXCC starts calling CQ which you've not seen before then this will be highlighted in dark purple (by default), if it's a new DXCC for you on the band, then it'll be highlighted a lighter shade of purple. Useful!

It's worth taking a look at the 'Colors' tab within the WSJT-X settings and learning these. This will allow you to quickly act on something you may 'need' like that rare DXCC or that rare grid square.

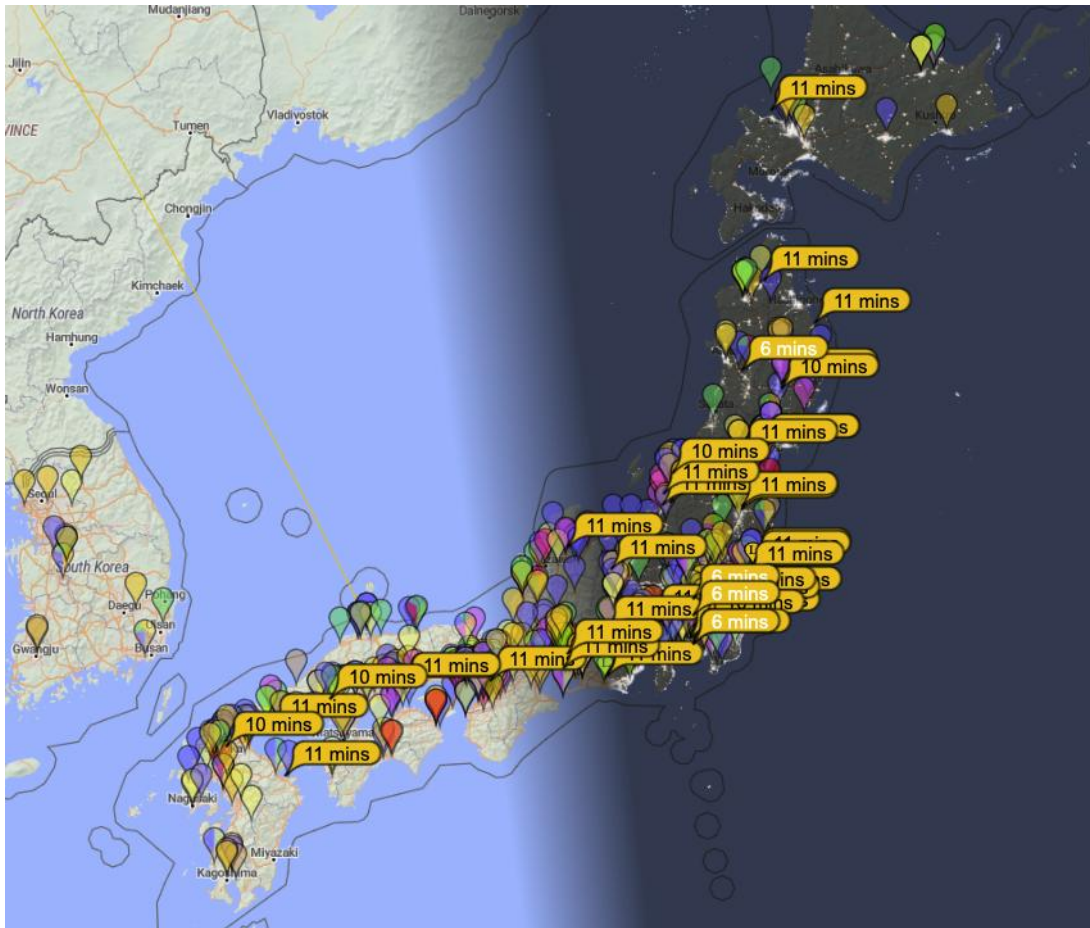


WSJT-X Message Colors

4. See Where You've Been Decoded

The PSKReporter.info website is a very useful tool to find out first of all if you're getting out, and secondly where in the world you are being heard!

This gives you an almost real time summary of the propagation on your chosen band, it's a great way to just understand the possible HF paths which may be open at a certain time of day.



My messages were being received well in Japan on this day (using 20m)

I typically have this running and check it every 20 minutes to see what I might be able to work or how propagation is changing to favour a certain area of the world.

Observing this resource has allowed me to work a lot of DX:

081615	-14	0.3	1483	~	M0JQCQ	BG0BBB	-19
081630	Tx		2516	~	BG0BBB	M0JQCQ	R-14
081700	Tx		2516	~	BG0BBB	M0JQCQ	R-14
081645	-15	-0.0	2516	~	M0JQCQ	JA6VQA	-18
081715	-6	0.3	1483	~	M0JQCQ	BG0BBB	RR73
081715	-12	-0.0	2516	~	M0JQCQ	JA6VQA	-18
081730	Tx		2516	~	BG0BBB	M0JQCQ	73
081745	-12	-0.0	2516	~	M0JQCQ	JA6VQA	-18
081800	Tx		2516	~	JA6VQA	M0JQCQ	R-12
081745	-12	0.0	2314	~	M0JQCQ	JH1EIG	-07
081815	-8	-0.0	2516	~	M0JQCQ	JA6VQA	RR73
081830	Tx		2516	~	JA6VQA	M0JQCQ	73
081845	-19	0.1	1730	~	M0JQCQ	JM1GAW	-09
081845	-12	0.0	2762	~	M0JQCQ	JH1EIG	-07
081915	-11	0.4	2762	~	M0JQCQ	JH1EIG	-07
081930	Tx		2516	~	JM1GAW	M0JQCQ	R-19
081915	-11	-0.1	2488	~	M0JQCQ	JA1DCO	-11

Pileup of JA stations calling me on 20m

5. Persevere

One misconception is that FT8 can be like shooting fish in a barrel, but it's not always easy to "work the world". The vagaries of propagation still come into play. Conditions can change quite quickly with openings appearing and fading out.

If a station doesn't respond to your call straight away, try leaving it calling them for a few cycles.

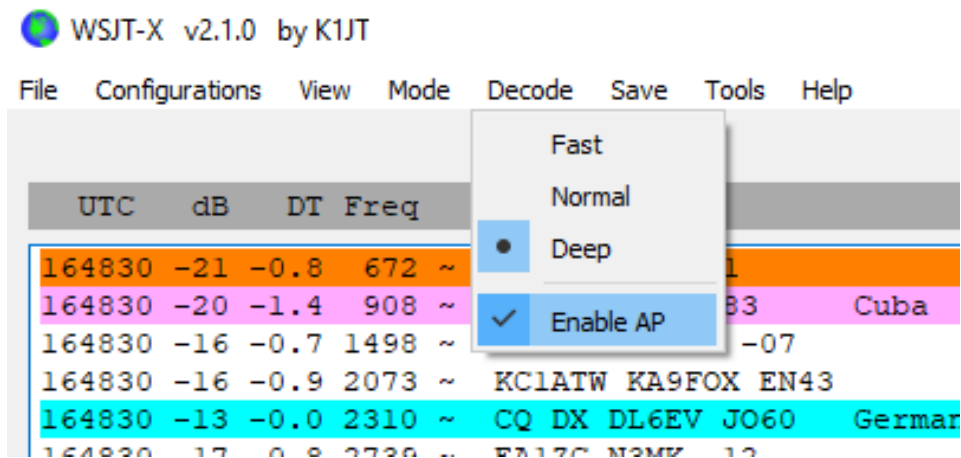
The conditions might just swing in your favour, then they can decode your message.

This is another great reason to operate away from the other station's frequency; you can continue calling them while they're in a QSO, without you interrupting it and you might end up possibly being worked straight after.

I used to give up a bit too quickly, but found that perseverance (especially with DX stations) usually paid off.

6. Enable 'Deep' and 'AP' Decoding

Without going into too much technical detail here, your FT8 decoding will be more sensitive if you set your WSJT-X decoding settings to 'Deep' and 'Enable AP':

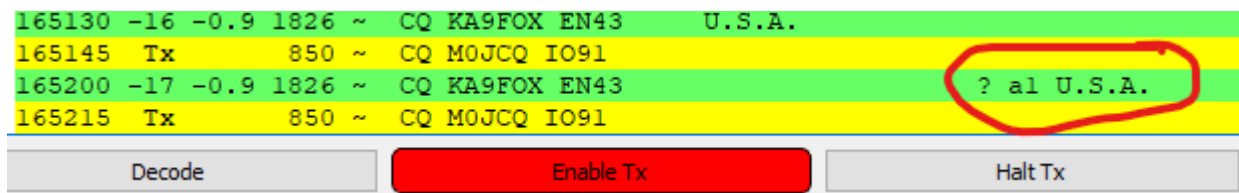


Enable AP in WSJT-X

Deep decoding throws more of your computer power at decoding the signal. While AP (a priori) uses heuristics and known information to decode messages, which otherwise wouldn't be decoded.

Deep decoding comes with a performance penalty, your computer may not decode all received signals before the next time period starts. While using my old shack laptop, I found this to be a problem when decoding a busy 20m band, but after upgrading I use it all the time now. You can always drop back to 'Normal' decoding if you notice this.

Enabling AP on the other hand can introduce some unusual side effects with the decoded message. If the callsign looks funny, then it's probably incorrect. It easy to see which messages had AP applied to them:



Decoded message using AP

Use your brain here – if it looks funny to you, then it's probably not right!

7. Can't Decode a Strong Signal? Lower your RF Gain

Sometimes you'll see a large signal on the Waterfall, but WSJT-X can only occasionally decode it, but at worst just cannot decode any of the messages at all. The station seems to be transmitting accurately timed signals, but nothing shows up, how strange!

I've noticed this occurring during strong openings, especially during Sporadic-E season on 6m, where strong signals of 10dB+ just won't decode.

I've found that simply turning down your rigs RF Gain will allow the messages to be decoded. A simple fix, but if you've not used other data modes you might not think to do this!

8. Not Getting Many Replies to your CQ Call? Change Frequency

You may find that for whatever reason you are not getting any responses to your CQ calls. This could be down to a number of factors, but it's always worth checking to see if your chosen frequency is clear within your chosen TX timeslot.

If another station is transmitting on your frequency or nearby during your TX timeslot, then other stations may not be able to decode your messages in order to even see your CQ messages.

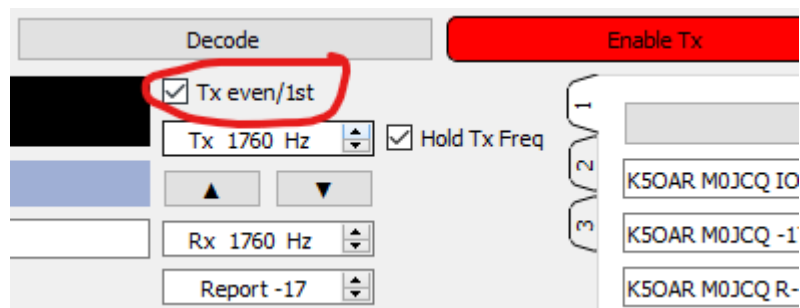
Even if you still can't see anything else when just receiving during your timeslot, there could well be another station on the same frequency which your DX is seeing, but you're not.

I've found it worth while moving frequencies, if you're not getting much luck, it usually works!

9. Change Timeslots

If you've spent a while using one timeslot (say even TX), then why not switch to the other one? This might net you a whole new haul of stations to work.

For me this usually leads to an (initial) increase in contacts and obviously allows you to work stations not worked in your other timeslot. I tend to keep switching between these timeslots every 20 minutes or so.



How to switch TX timeslots in WSJT-X

A word of warning here: make sure there are no timeslot conventions on your chosen band. VHF bands have a convention where your timeslot is chosen based on your location, in order to prevent nearby stations interfering with each other, when you're all trying to receive distant and weak DX. Your RF neighbors won't thank you for breaking this convention.

10. Pay Attention to all Received Messages to Spot DX

WSJT-X will decode all messages across the 3kHz spectrum of the band you're using (or less depending on your radios selected filter). This can result in many decodes on a busy band like 20m.

I've spotted quite a lot of DX and then subsequently worked them, without ever seeing them call CQ! DX stations are often overwhelmed by stations calling them, so don't often need to call CQ.

By monitoring all messages (not just highlighted CQ messages) in the left hand 'Band Activity' pane, then you might just spot some rare DX lurking. You might also notice a number of other stations calling a DX

station during your RX timeslot. A simple switch to the other timeslot and you might just be able to decode and then work them.

This has netted me a number of DX stations I would have otherwise missed by just paying attention to CQ messages only!

Summary

These are my top 10 operating tips for FT8 using WSJT-X, these are all learned based on my experience and hopefully there's something of use here.



Jim Stevens-M0JQC is an active portable operator and enjoys Summits on the Air and is a frequent activator of hills/mountains/volcanoes around Europe and sometimes beyond. He also co-authors the VHF/UHF column in RadCom (the RSGB monthly Journal) and writes about many of his amateur radio activities in his bog: www.hamblog.co.uk

Central Division members,

Wow - December 1st is Thursday!

CEO David Minster, NA2AA, gave a review of the ARRL's accomplishments during 2022 in his editorial column in the December QST, and he said we are going to see a bright spotlight in 2023 focused on volunteerism in Amateur Radio, especially with the ARRL. In his forthcoming January 2023 Editorial column, CEO Minster will be announcing the Volunteers on the Air (VOTA) operating event for 2023. It is structured similar to the 2014 ARRL Centennial operating event that was a huge success. Each state and many US possessions will be operating W1AW/X (W1AW/9 for us in the Central Division) for two weeklong periods. More details will follow in QST and on the ARRL website.

In 2023, I hope you continue your involvement (or start your involvement):

- 1) in public service/emergency communications
- 2) in contributing to the advancement of the radio art
- 3) in advancing skills in both the communication and technical phases of the art
- 4) in expanding the existing reservoir within the amateur radio service of trained operators, technicians, and electronics experts, and
- 5) in continuing and extending the amateur's unique ability to enhance international goodwill

If these five bullets sound familiar, they are the five reasons in Part 97 Amateur Radio Service (of CFR Title 47: Telecommunication) for why we

have frequency allocations.

With respect to hamfests and conventions in 2023, eight events have already been approved (five in IL, two in IN and one in WI). Please get your applications to Steve Ewald WV1X at HQ. Hopefully 2023 will be an even better year for these events.

Finally, get radio-active! Solar Cycle 25 continues its ascent, and the higher HF bands (15-meters and 10-meters) are offering worldwide opportunities - even if you run modest power and have simple antennas.

ARRL Central Division
Director: Carl Luetzelschwab, K9LA
k9la@arrl.org

For Sale

Selling Everything - It All Must Go

Paul, N9QYK is selling off all his stuff he has collected over the years. If you are interested in knowing what he has, give him a call at 574-772-2021.

There are still items for sale on the website.

www.w9joz.org

If you have something for the newsletter, please send it to me before the 25th of the month.

See you at a meeting.

73

John, W3ML

