



Ridgeway Repeater Group. Newsletter Fourth Quarter 2022

Messages/Notices

This is the last newsletter of 2022 and the next one will be published in the new year so let me wish you all a very Merry Christmas and a Very Happy New Year.



Hope you like my attempt to make this newsletter more seasonal.

A snippet from the RRG secretary Rob G4XUT.

GB3TD is its usual self. Bob, G0VNP (once of this Parish) operated into GB3TD via Echolink from Mid Atlantic Ocean during his cruise to Canada using the ships Wi-fi at great cost to him. The ship was the P&O Aurora and another first for GB3TD we believe!

John G1OQV also was heard on GB3TD via Echolink during his short stay in GW Hospital, John has now returned home and we all wish him well for the future.

All of our other repeaters do not have any reported issues and are working as per normal. Rob has just renewed the NOV for GB3TD-L.

The RRG has recently learned of the sad loss of Colin, G7HPI from Swindon.

Our thoughts go out to Colins family at this sad time. Colin was very active not only on our repeaters but also on 70Mhz and HF and had a particularly keen interest in Military radio and home brew equipment. I can say that I met him on a couple of occasions and was a very interesting person to talk on the subject of home brewed equipment and his love of ex-military radio's.

This article has been authored by Robin G8VVY and should have been in the last newsletter, it was my mistake and my apologies to Robin, I say thank you very much for this article as any additional content is always very much appreciated.

FT8 MODE – AN OPERATIONAL PERSPECTIVE

NOTES BY G8VVY

This write-up is to identify some of the practices – that may not be so obvious when one starts using this, and related, mode(s) - that I have come across during my workings with FT8.

The 'FT', and related, modes are designed for making basic contacts under weak signal conditions. FT8 uses 15 second frames for transmit and receive, whilst FT4 runs double the rate - 7.5 seconds – and is ideal for contesting; the RSGB have an 80m FT 4 event running throughout the year.

FT4 can often be better when there is heavy/fast QSB as you are much better able to complete the QSO during the short periods of signal strength improvement.

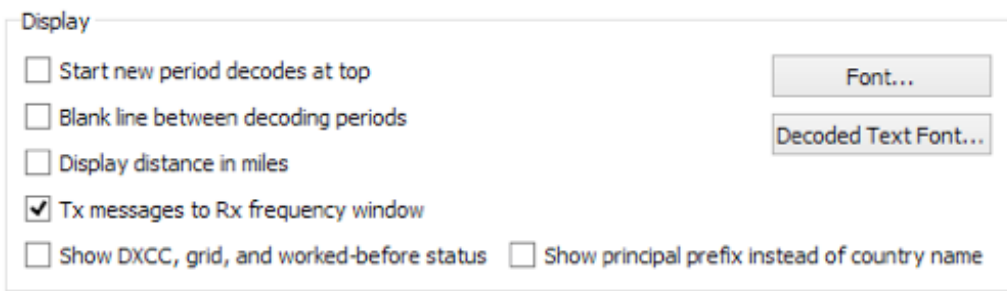
When other modes are notable by their absence of signals, there's usually some FT activity on at least one of the HF bands.

I have found that 20m probably offers the best scope for some good DX but you have to be patient! When you only have 5 Watts to play with and indoor dipole antennas; even FT mode is not going to be easy. 😊

Probably *the* most important issue to take care of before venturing into machine generated modes is to ensure your machine/computer is synchronised as closely as possible to atomic clock time.

Meinberg are a manufacturer of such clock devices and also offer a free NTP software package that is easy to install. It is very much 'set it and forget it' and I occasionally check my PC time at time.is and it always shows the correct time. The service has a very small 'footprint'.

Moving straight to the WSJT-X GUI; I 'check' the DXCC, grid and worked-before status box under Display.



Under Behaviour, I allow Tx freq. changes and 'wind up' the Tx watchdog to the maximum of 10 minutes. I find this is OK when using the FT817; the rig always runs quite hot – no more so using 100% duty cycle modes - but it often takes considerably longer than 10 minutes to work a particularly elusive station! Do check regularly that there is no one sitting on your transmit frequency that could be drowning your signal!

Behavior

<input type="checkbox"/> Monitor off at startup	<input type="checkbox"/> Enable VHF and submode features
<input type="checkbox"/> Monitor returns to last used frequency	<input checked="" type="checkbox"/> Allow Tx frequency changes while transmitting
<input type="checkbox"/> Double-click on call sets Tx enable	<input type="checkbox"/> Single decode
<input type="checkbox"/> Disable Tx after sending 73	<input type="checkbox"/> Decode after EME delay
<input type="checkbox"/> Calling CQ forces Call 1st	
<input type="checkbox"/> Alternate F1-F6 bindings	Tx watchdog: 6 minutes
<input type="checkbox"/> CW ID after 73	Periodic CW ID Interval: 0

I did have a number of additional 'Tx Macros' stored to start with but found that it very often confused other amateurs and I'd finish up having to send '73' anyway! I do have a BEST 73 one which I use for certain QSOs; usually when the signals are strong and the contact will understand the sentiments!

Settings

General Radio Audio Tx Macros Reporting Frequencies Colors Advanced

BEST 73 G8VVY Add Delete

Under 'Settings' and 'Reporting'; I agree with the set-up in the WSJT-X manual and have it prompt me to save the QSO and send details to 'PSK Reporter'.

Logging

Prompt me to log QSO Op Call:

Log automatically (contesting only)

Convert mode to RTTY

dB reports to comments

Clear DX call and grid after logging

Network Services

Enable PSK Reporter Spotting Use TCP/IP connection

On the 'Frequencies' TAB; it can be useful to add frequencies that you use frequently. I generally only use the standard allocations but if you need to log the operating frequency accurately, it would be a good idea to include DXpedition frequencies, for example, too.

Under 'Colours', I find this is a very personal choice. I found the original colours – see below – not sufficiently distinct for my vision so changed them to suit.

I don't have 'New Continent', 'New DXCC' etc. checked as I let **GridTracker** handle this for me.

It is important to maintain a 'clean' signal when transmitting and if you over drive the sound card circuitry you can create distorted signals and audio harmonics; not conducive to getting contacts and not giving you a good name either!

With the FT817ND, I have found it very important to keep the ALC to the barest minimum – not showing a single bar if possible. It's always tempting to increase it if you see that you're putting out a few more milliwatts ... but it will result in less successful QSOs.

Make sure you keep the Receive bar graph indicator in the 'Green'. Over driving the sound inputs could cause distortion and lower the chance of getting good decodes.

Regarding frequencies; it is recommended that you choose a 'quiet' frequency and check the 'Hold Tx freq' box to stay on it.

I have to say that I have found it extremely difficult to have QSOs when I follow that procedure on 40, 20 and 15m bands ... but, bizarrely, it does work on the higher frequencies 10, 6 and 2m? Initially, I thought it was just coincidence that I found I could make the contact by keeping to the transmitting station's frequency, but the issue is very repeatable. It may be due to the fact that my signals really are very weak and that perhaps the nearer, (in frequency), received signals are decoded first?







Looking at the 'Decode' options – Fast, Normal and Deep plus Enable AP – your overall PC specification may determine which of these you might best employ. 3 receive decode sequences occur during the 15 second period, each improving the accuracy of the data. **AP**riori uses heuristics to make a best guess when conditions are difficult. I use Deep and AP always, excepting that you'll sometimes see odd decoded text. If you are seeing high processor usage, try reducing to Normal or Fast and turn off AP.

Again, as mentioned in many places on the Net, perseverance is paramount! With low power and compromised antennas, it is always going to be challenging. If conditions are not good when you're trying for that elusive DX station, leave things for a few minutes and then try again.

You don't even need the signal to hold up for a complete frame in order to be fully decoded. That's why it's possible to have contacts with stations who are over 2 seconds adrift of atomic time.

Finally, I recently came across an unfamiliar mode of using FT8 – specifically for DXpeditions – and using what is referred to as 'Fox and Hounds' mode.

As the operating frequencies are **not** in the conventional sub-bands, they need to be identified by the DXpedition beforehand or – I found the best way was to check a spotting site like dxsummit.fi.

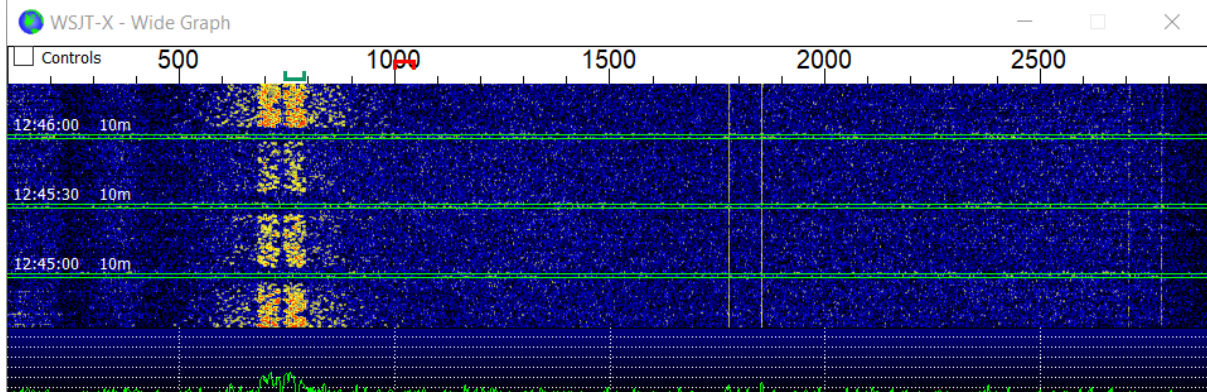
 Spotter	 Freq.	 DX	 Time	 Info	 Country
IK2HKT-@	50303.0	J5HKT	14:35 16 Oct	FT8. F/H	Guinea-Bissau
SV1GRN-@	21092.0	J5HKT	13:34 16 Oct	F/H	Guinea-Bissau
PU2KNM	21091.0	J5HKT	13:30 16 Oct	SWL FT8 -3 dB 733 Hz	Guinea-Bissau
OK1ASG	18095.0	J5HKT	13:27 16 Oct	FT8 -09dB from IK21 737Hz	Guinea-Bissau
IK2OVT	18095.0	J5HKT	13:27 16 Oct	FT8 TNX GD DX GL 73 CIAO	Guinea-Bissau
SM6JQZ	21092.3	J5HKT	13:18 16 Oct	FT-8	Guinea-Bissau
SV1FKZ	24911.0	J5HKT	13:12 16 Oct	tnx 73 ft8 cq	Guinea-Bissau
KJ4YLO	21091.0	J5HKT	13:07 16 Oct	IOTA AF-020	Guinea-Bissau
YL2VW	24911.0	J5HKT	13:06 16 Oct	FT8	Guinea-Bissau
US6ISV-@	28091.0	J5HKT	12:50 16 Oct	FT8	Guinea-Bissau

At the time of writing, an Italian DXpedition to Guinea-Bissau was underway and checking dxsummit.fi indicated the bands and frequencies that were in use for FT8 QSOs.

There is a detailed description from Joe Taylor, (WS Joe Taylor-X), on how to set-up for this specific mode of contact but I found that as long as you worked in a free/quiet space above 1,000 Hz, you were in with a chance! I had already proven this with an earlier DXpedition QSO.

Oddly, even though I mentioned earlier about having virtually zero success on the 15m band if I didn't stay very close to the calling station's frequency ... for this Fox and Hounds mode it certainly worked!

The following screenshot shows the multiple transmitted signal from the Fox – J5HKT – at 687 and 747 Hz. I tried calling at 1,000 Hz, which looked clear at my end, but didn't manage to get anywhere.



I decided to move up a few Hz and try again. This time with success! Note the double conversations in each transmission from the Fox station.

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
122930	-3	0.2	740	I28EE1 RR73; CT3IQ <J5HKT> +14	123030	-7	0.2	747	SP1I J5HKT +04
122930	-1	0.2	806	R7TO J5HKT RR73	123045	Tx		1058	J5HKT G8VVY IO81
122930	-2	0.2	685	G4PIQ RR73; IN3VVK <J5HKT> +14	123115	Tx		1058	J5HKT G8VVY IO81
123000	-3	0.2	746	IN3VVK RR73; OH7UE <J5HKT> +08	123145	Tx		1058	J5HKT G8VVY IO81
123000	-3	0.2	686	CT3IQ RR73; RA3ZH <J5HKT> +00	123215	Tx		1058	J5HKT G8VVY IO81
123030	-7	0.2	747	SP1I J5HKT +04	123315	5	0.2	687	J5HKT YD1FRU -08
123030	-6	0.2	687	RA3ZH RR73; OH7UE <J5HKT> +08	123330	-14	0.2	689	CQ J5HKT IK21 Guinea-Bissau
123030	-6	0.2	807	IW2NZD J5HKT +03	123345	Tx		1058	J5HKT G8VVY IO81
123030	-5	0.2	867	F5MXH J5HKT +05	123400	-18	0.2	689	OZ0J J5HKT +20
123245	-12	0.1	1409	J5HKT IV3CIS JN65	123415	Tx		1058	J5HKT G8VVY IO81
123315	5	0.2	687	J5HKT YD1FRU -08	123430	-16	0.2	689	OZ0J RR73; G8VVY <J5HKT> -08
123315	-10	0.2	1382	J5HKT OZ0J JO55	123445	Tx		1058	J5HKT G8VVY IO81
123330	-14	0.2	689	CQ J5HKT IK21 Guinea-Bissau	123446	Tx		1058	J5HKT G8VVY R+02
123400	-18	0.2	689	OZ0J J5HKT +20	123500	-16	0.2	690	G8VVY RR73; EA5BM <J5HKT> +10
123430	-16	0.2	689	OZ0J RR73; G8VVY <J5HKT> -08	123515	Tx		1058	J5HKT G8VVY R+02
123500	-16	0.2	690	G8VVY RR73; EA5BM <J5HKT> +10	123516	Tx		1058	J5HKT G8VVY 73

The Last Word

I cannot give you any update on the local lake as with reports of bird flu found at various lakes around I'm not taking any chances so keeping clear of the lakes during my walks.

The last time I was around the local lake I did notice that this years brood of Cygnets have grown to their normal adolescence size and should survive the winter into adulthood.

That increases the flock by three and at the last rough count there were thirty plus adults on the lake and no sign of any of them moving on.

For Sale

Ken, G1NCG has two lightweight 10 Metre masts for sale with guying ropes. Originally they were bought from Moonraker and they have had a fair amount of usage but are in reasonable condition. Please contact Ken for more information kenpow47@gmx.co.uk
