

FT8 Advanced

Add Ons
and Tips and tricks
Fox/Hound vs. Super F/H

Bill Botjer N2WPT

JT Alert

Callsigns #1

All decodes

- 13 AA1EF ME U.S.A.
- +09 CO3LY B4 CO Cuba
- 11 CT3IQ Madeira Is.
- +02 EABDS CO Canary Is.
- +02 HI3CH Dominican Rep.
- 22 HI3K Dominican Rep.
- 13 HI3K CO Dominican Rep.
- +02 HI8RMQ B4 Dominican Rep.
- 21 HK3J Colombia
- 10 KM3V MD U.S.A.
- +03 KP4MAQ CO Puerto Rico
- +03 PY2DPM B4 Brazil
- +04 WA9IVH IL U.S.A.

Callers : Alert

- +12 CO3LY B4 CO Cuba 39s
- +03 PY2DPM B4 Brazil 2 8s 1

Alerts Only

- +03 PY2DPM B4 Brazil

21:26:06 13 2 1 DT+0.2 CO3LY 12m FT8 default

Activity

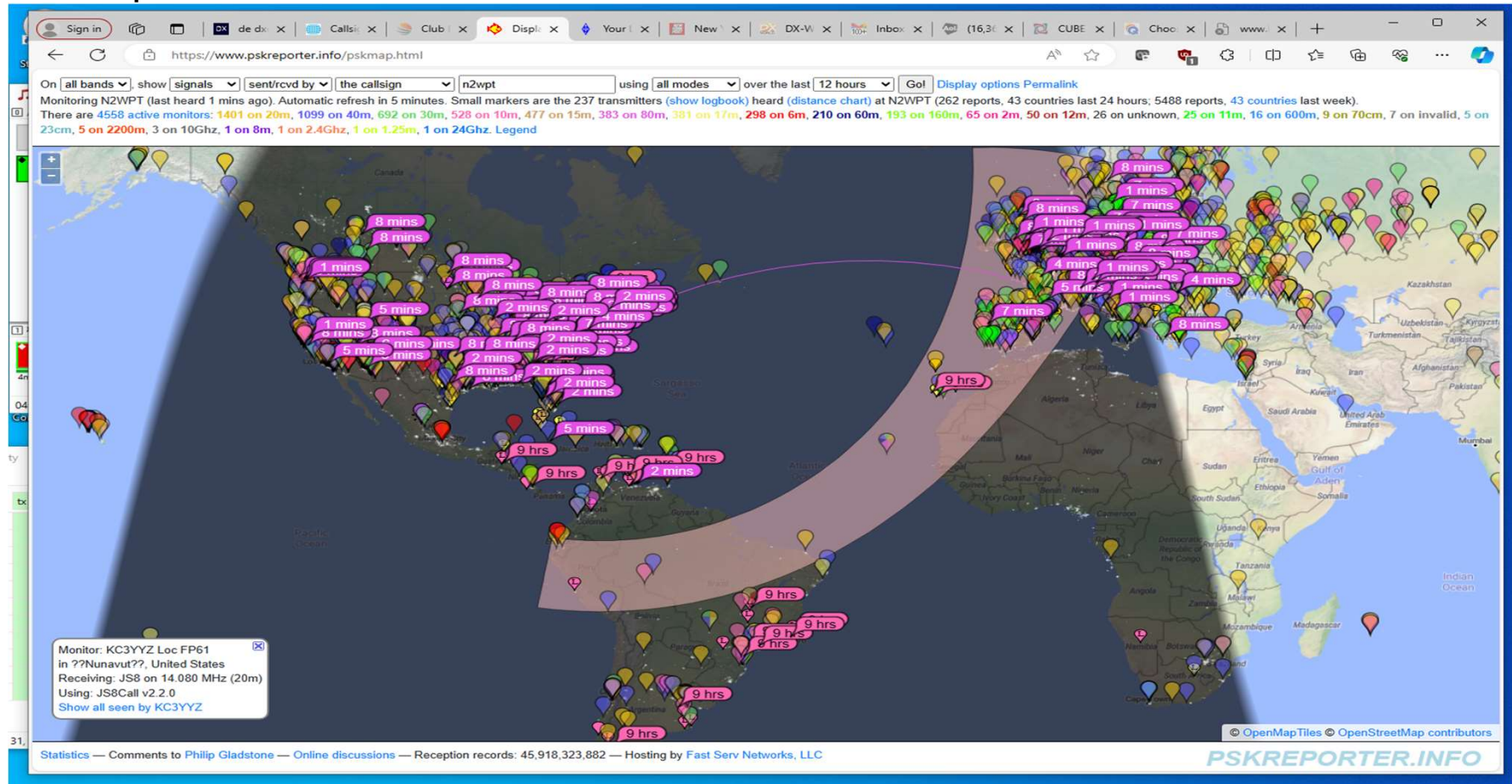
Callsigns @ 21:25 utc

	tx	JT65	rx	tx	FT4	rx	tx	FT8	rx
160m								2	2
80m				7	27			193	213
60m				1	1			24	91
40m				49	68			278	487
30m	1	1		13	35			263	480
20m				181	252			625	+1K
17m				18	46			343	658
15m				32	77			263	769
12m				1	2			103	330
10m				24	27			291	625
Total	2	2		286	387			+2K	+4K

JT Alert

- I consider it a part of WSJTX
- It reads the info from WSJTX
- Allows you to grab a call that scrolled past too fast and not highlighted
- You can click on the panels to transmit
- Callers highlighted in red
- Second panel shows band usage
- Can show calls that are on LOTW
- Shows country and US states on panels, good for WAS

PSK Reporter



Fox/Hound Mode

- A sub mode within FT8 for use by DX expeditions(which is the fox) you are the hound. Watch for spots to see who is using it.
- It is done outside of usual FT8 bands, watch for spots to see where they are.
- Enter by clicking the H box on main screen
- It has its own protocols
 - Fox transmits below 1000Hz on band screen
 - Fox can transmit on *multiple frequencies simultaneously*
 - Hounds must transmit above 1000Hz on band screen
 - Your transmissions limited to 2 minutes on each click

Fox/Hound 2

- Spooky action at a distance (per A. Einstein):
 - after Fox acknowledges you, you will be magically (automatically) moved to one of the transmit frequencies to complete the QSO, logging screen will popup.
 - If your 2 minutes transmission has timed out, the fox can re-enable your transmitter if you are in his receive queue (but you won't know if you are in the queue, so you may want to manually re-enable transmit).
- Note well- If you can't hear (decode) them, you can't work them!!

F/H Screenshot

The screenshot displays the WSJT-X software interface. At the top, a waterfall plot shows a signal at 10.131020 MHz. Below the plot, a message log is visible, showing a list of messages with their UTC, dB, DT, and Freq. The messages include call signs and various codes, such as '3GOYA W9CSX EN69' and '3GOYA N2WPT R-02'. The interface also shows a control panel with buttons for 'Log QSO', 'Stop', 'Monitor', 'Erase', 'Decode', 'Enable Tx', 'Halt Tx', and 'Tune'. A frequency display shows '10.131 020' and a time display shows '2024 Apr 22 03:06:59'.

UTC	dB	DT	Freq	Message
030545	-4	0.1	2495	3GOYA IZ7NLG UN80
030545	-3	0.2	1312	3GOYA W9CSX EN69
030545	4	0.2	1558	3GOYA KC9IVQ EN62
030545	-5	0.2	1900	3GOYA NZ11 R+00
030600	1	0.2	516	SS7AI 3GOYA -13
030600	0	0.2	576	W9CSX 3GOYA +07
030600	1	0.2	455	NZ11 3GOYA RR73
030600	-1	0.2	635	KB8UIP 3GOYA -20
030600	1	0.2	395	KC9IVQ 3GOYA -09
030615	2	0.2	576	3GOYA W9CSX R-12
030615	-7	0.2	1901	3GOYA NZ11
030615	-5	0.1	2494	3GOYA IZ7NLG UN80
030615	2	0.2	1558	3GOYA KC9IVQ EN62
030630	5	0.2	516	KB8UIP 3GOYA RR73
030630	5	0.2	456	W9CSX 3GOYA RR73
030630	5	0.2	396	KC9IVQ 3GOYA -12
030645	7	0.2	1558	3GOYA KC9IVQ EN62
030645	-2	0.1	2495	3GOYA IZ7NLG UN80
030645	-5	0.2	1554	3GOYA NM19F EN60

MSHV

- MSHV is similar to F/H (but different)-
 - Usually on non standard frequencies
 - Multiple streams
 - You should transmit above 1000Hz on band screen (but not required), the target transmits below
 - No 2 minute timeout
 - No Moving to one of the transmit frequencies
 - When in doubt use F/H mode

And now for something new:



SuperFox Mode

- FT8 SuperFox is a new advanced mode within the WSJT-X software, designed to enhance the capabilities of the popular FT8 digital communication mode. FT8 is known for its efficiency in weak signal conditions, making it a favorite among amateur radio operators for long-distance contacts.
- **SuperFox mode** is specifically tailored for high-demand situations like DXpeditions, where a single station (the “Fox”) needs to handle multiple simultaneous contacts with other stations (the “Hounds”). This mode allows the Fox to work up to 9 stations at once without degrading the receive signal quality
- The key features of SuperFox mode include:
- **Wider Signal Bandwidth:** A normal FT8 signal is 50 Hz wide, while a SuperFox signal is 1512 Hz wide.
- **Enhanced Message Handling:** It supports a new verification system for more efficient communication
- **High QSO Rates:** Ideal for DXpeditions and special events that require high contact rates. N5J reported 200 QSOs per hour
- If you’re involved in a DXpedition or a special event, SuperFox mode can significantly improve your operational efficiency and contact rates.
- You need version 2.7RC7 of WSJT-X software (release candidate 7) to use this mode.

WSJT-X - Wide Graph

Controls 500 1000 1500 2000 2500

39:30 20m
39:15 20m
39:00 20m
38:45 20m
38:30 20m
38:15 20m
38:00 20m
37:45 20m
37:30 20m
37:15 20m
37:00 20m
36:45 20m

JTAlertV2 2.62.2 N2WPT [20m,FT8, *** NO LOG *** #... - X

Alerts Settings View Sound ON Help

WSJT-X v2.7.0-rc6 by K1JT et al.

File Configurations View Mode Decode Save Tools Help

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
K8R	verified			20m	033200	-14	0.4	766	~ KD9YOO K8R +01
033745	5	0.3	2234	~ K8R NJ6G R+14	033245	Tx		935	~ K8R N2WPT FN30
033745	-16	0.2	1878	~ K8R KD9YOO EM69	033315	Tx		935	~ K8R N2WPT FN30
				20m	033345	Tx		935	~ K8R N2WPT FN30
033800	-10	0.4	770	~ NJ6G K8R RR73 U.S.A.	033415	Tx		935	~ K8R N2WPT FN30
K8R	verified			20m	033430	-14	0.4	770	~ N2WPT K8R -06
033830	-9	0.4	771	~ CQ K8R AH45 U.S.A.	033445	Tx		935	~ K8R N2WPT R-14
K8R	verified			20m	033515	Tx		935	~ K8R N2WPT R-14
033900	-10	0.4	776	~ CQ K8R AH45 U.S.A.	033530	-9	0.4	768	~ N2WPT K8R RR73 U.S.A.
K8R	verified			20m					
033930	-10	0.4	771	~ CQ K8R AH45 U.S.A.					
K8R	verified			20m					

Log QSO Stop Monitor Erase Decode Enable Tx Halt Tx Tune Menu

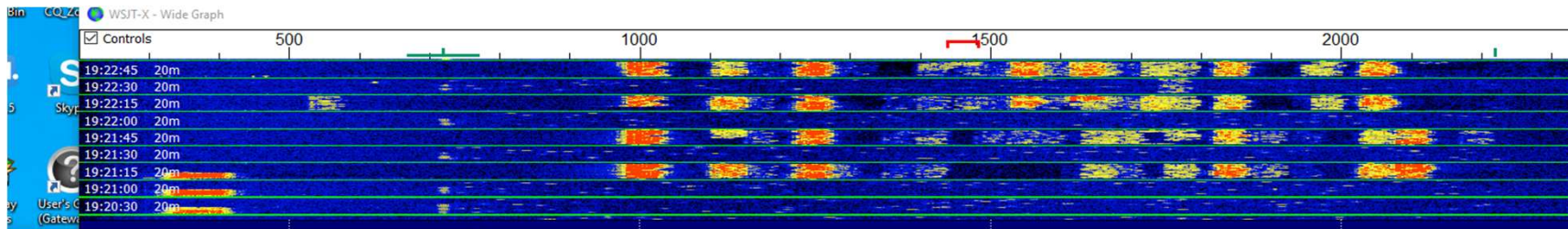
20m 14.090 980 Tx even/1st Tx 935 Hz Rx 766 Hz Report -14 Auto Seq Super Hound

DX Call DX Grid K8R

2024 Jul 27 03:39:48

Receiving FT8 Last Tx: K8R N2WPT R-14 2 3/15 WD:5m

Band Chart 11X17 Gol...
Old Firetox Data
Elecrafit X3 repair report
FT8_Hinson
Videos - Shortcut
LP BRIDGE Shortcut



JTAlertV2 2.62.2 N2WPT [20m, FT8, *** NO LOG *** ,#... - - - - -
 Alerts Settings View Sound ON Help

WSJT-X v2.7.0-rc7 by KIJT et al.
 File Configurations View Mode Decode Save Tools Help

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
192245	-5	0.1	1946	~ S9Z KD4ADC EM74	191645	Tx		1438	~ S9Z N2WPT FN30
192245	1	0.4	1105	~ S9Z K9OW EN43	191630	-2	0.3	715	~ KW6E S9Z -08
192245	12	0.1	1533	~ S9Z W7PJS EM75	191646	Tx		1438	~ S9Z N2WPT FN30
192245	-13	0.2	1451	~ S9Z DL3FCS JO40	191630	-2	0.3	715	~ EA5GVH S9Z -02
192245	-8	0.2	1752	~ S9Z K15UCZ EM45	191715	Tx		1438	~ S9Z N2WPT FN30
192245	-12	0.7	1961	~ S9Z WS4AM EL89	191700	-4	0.2	715	~ W2YK S9Z +05
192245	-8	0.1	1632	~ S9Z AI3Z FM19	191745	Tx		1438	~ S9Z N2WPT FN30
192245	-23	0.1	1151	~ S9Z IT9UCS JM77	191815	Tx		1438	~ S9Z N2WPT FN30
192245	-13	0.2	1642	~ S9Z EA5JEG IM99	191845	Tx		1438	~ S9Z N2WPT FN30
192245	-11	0.1	1399	~ S9Z K82T EN91	192000	-1	0.3	719	~ N2WPT S9Z -05
192245	-23	0.2	1294	~ S9Z PA3ECU JO32	192000	-1	0.3	719	~ AI3Z S9Z +12
192245	-13	0.2	1567	~ S9Z KF2UJ FN20	192015	Tx		1438	~ S9Z N2WPT FN30
192245	-17	0.1	1397	~ S9Z K2DBK FN21	192030	-2	0.2	720	~ N2WPT S9Z -05
192245	-19	0.1	1678	~ S9Z EA5WP IM99	192045	Tx		1438	~ S9Z N2WPT R-02
					192100	-2	0.2	720	~ N2WPT S9Z RR73 ITU Zone 47

Log QSO Stop Monitor Erase Decode Enable Tx Halt Tx Tune Menus

20m **S** **14.092 020** Tx even/1st
 TX 1438 Hz
 F Tol 50
 RX 719 Hz
 Report -2
 Auto Seq **Super Hound**

Generate Std Msgs Next Now Pwr
 S9Z N2WPT FN30 Tx 1
 S9Z N2WPT -02 Tx 2
 S9Z N2WPT R-02 Tx 3
 S9Z N2WPT RR73 Tx 4
 S9Z N2WPT 73 Tx 5
 CQ N2WPT FN30 Tx 6

Receiving FT8 Last Tx: S9Z N2WPT R-02 21 2/15 WD:7m



Joe Taylor's team now offers a "SuperFox" mode of WSJT-X for making rapid FT8 QSOs. Hounds chasing the SuperFox DX station transmit normal FT8 signals, as in the already familiar Fox/Hound mode.

But rather than sending concurrent streams of up to five FT8 signals, the SuperFox station transmits a single constant envelope, using a 1.5 KHz-wide waveform, that conveys signal reports or "RR73" acknowledgments to as many as ***nine different Hounds simultaneously***. Most importantly, there will be no signal-strength penalty for simultaneously transmitting to all those Hounds.

Another very significant improvement will be a digital signature contained in the SuperFox message that will allow the receiving software to verify the legitimate origin of the signal from a validated DXpedition.

The SuperFox mode made its debut during the [N5J Jarvis Island DXpedition](#) (August 2024).

You may need an upcoming version of FT8 to use all the features of this mode.

Super Fox mode can be tricky for the hounds

- You must be right on the posted frequency
- You must be able to receive the pilot signal (which can be faint) within a narrow band around 750 Hz- see the bracket in the screen shot
- If you are not receiving the pilot signal you will be *locked out from transmitting*. This prevents lids from QRMining the signal from calling before reception.
- When you receive the signal the “super hound” box turns green

Alternative FT8 Programs: JTDX

The screenshot displays the JTDX software interface, which is used for FT8 digital mode operations. The top section features a 'Wide Graph' showing a spectrogram of the frequency spectrum from 500 to 2000 kHz. Below the graph is a control bar with various settings like 'Bins/Pixel 2', 'Start 0 Hz', and 'Gain 0'. The main window is titled 'JTDX by HF community' and shows a list of received signals with columns for UTC, dB, DT, Freq, and Message. The current frequency is set to 28.074 000 MHz at 20:16:00. The interface includes a 'Band Activity' window, a 'Tx/Rx Split' control, and a 'Monitor' button. The bottom status bar shows 'Receiving' and 'FT8' mode.

UTC	dB	DT	Freq	Message	Country
201530	-13	0.3	1275	~ PY2DN N5LOW EL29	*U.S.A.
201530	-15	0.5	2006	~ W2EXD K6SH CM87	*U.S.A.
201530	-16	0.1	1254	~ W4I K1OJ R-09	*U.S.A.
201530	-14	-0.2	1250	~ CQ POTA KJ5GVE EL29	U.S.A.
201530	-19	0.1	1255	~ CQ POTA KJ5GVE EL29	U.S.A.
201530	-21	-0.0	1100	~ J69DS N6AJR DM14	*U.S.A.
201530	-18	1.7	1724	~ N1MGO W7RN -12	Hawaii
201545	-3	0.1	594	~ N81T W7WM 73	*U.S.A.
201545	-9	1.0	1399	~ CQ POTA KJ5GVE EL29	*U.S.A.
201545	-9	0.1	1899	~ CQ POTA KJ5GVE EL29	*U.S.A.
201545	-1	0.2	1380	~ CQ POTA KJ5GVE EL29	*U.S.A.
201545	-8	0.3	1994	~ NH6D KJ5GKK EM40	U.S.A.
201545	-4	0.1	392	~ W4SRIP K0HMZ -04	U.S.A.
201545	-4	0.2	1519	~ W3PIZ J69DS +03	St. Lucia
201545	-12	0.3	1591	~ PY3SS D2UY -24	U.S.A.
201545	-12	0.1	2188	~ W7RN N1MGO FN42	*U.S.A.
201545	-7	0.1	246	~ W44CVK K6FDB DM12	U.S.A.
201545	-19	0.1	1311	~ CQ POTA KJ5GVE EL29	*U.S.A.
201545	-12	0.2	671	~ K81J K6NV R-09	U.S.A.
201545	-9	0.1	1399	~ CQ POTA KJ5GVE EL29	*U.S.A.
201545	-6	0.1	638	~ W4SHIF W7CK R-15	*U.S.A.
201545	-10	0.7	2494	~ K0PYHH K0BFD R-08	*U.S.A.
201545	-9	0.1	1601	~ K1SEXY N3AZ EL08	*U.S.A.
201545	-12	-0.7	693	~ N44LP K6STLU 73	U.S.A.
201545	-12	0.2	2094	~ K83ULR W7PL 73	*U.S.A.
201545	-11	0.1	1689	~ W7PK W8SBSH EM35	U.S.A.
201545	-21	0.2	770	~ CQ PY5JO G054	Brazil
201545	-18	1.2	1301	~ CQ W44SZA F468	Puerto Rico
201545	-16	0.1	353	~ W44CVK K6FDB FN31	*U.S.A.
201545	-16	0.2	1557	~ H1ICDZ K770FS DM26	*U.S.A.
201545	-6	1.0	1697	~ J88BTI K6COSH EN11	U.S.A.
201545	-14	0.1	880	~ CQ PY1ML G087	Brazil
201545	-9	0.1	1240	~ CELPTI N7TJB -04	U.S.A.
201545	-13	0.1	1546	~ AC3LX K5MGY RR73	*U.S.A.
201545	-18	-1.1	1519	~ N2KAW K64YR -14	Puerto Rico

WSJT-X Improved

WSJT-X v2.7.1-devel by K1JT et al.

File Configurations View Filters Mode Decode Save Tools Help

Band Activity					Rx Frequency				
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
203000	6	0.1	1096	~ N5ZSO RD4IE EL98 FL	202515	-4	-0.6	703	~ HP1CDW KB5TLU R-07
203000	0	0.2	2420	~ WL7E <HC1MD/2> -15	202545	-2	-0.6	705	~ HP1CDW KB5TLU 73 U.S.A.
203000	0	0.9	1568	~ CQ CO8LY FL20 Cuba	202700	-5	0.1	1524	~ K3NO C6AVD RR73 Bahamas
203000	-2	0.1	1470	~ N0V N4ACE EM48 MO-IL	202718	Tx		2223	~ C6AVD N2WPT FN30
203000	2	0.1	2056	~ KW0G NF0N EN12 NE-IA-SD	202724	Tx		1750	~ C6AVD N2WPT FN30
203000	-11	0.1	463	~ VA7QB KE0N RR73 U.S.A.	----- 12m -----				
203000	-15	0.2	1654	~ FK8HM NOICE -09	202800	-2	0.2	1525	~ K1NV C6AVD RR73 Bahamas
203000	-15	0.2	1526	~ KE9BGK C6AVD RR73 Bahamas	202830	-11	0.1	1525	~ CQ C6AVD FL15 Bahamas
203000	-9	0.3	1133	~ AK6Q V31DL EK57	202850	Tx		1750	~ C6AVD N2WPT FN30
203000	-16	-0.3	1453	~ N5ZSO K7YY DN06 WA	202900	-5	0.1	1526	~ KE9BGK C6AVD +06
203000	-18	0.3	1277	~ FK8HM AC7GL DN13 OR-ID	202915	Tx		1750	~ C6AVD N2WPT FN30
203000	-17	0.3	1105	~ <N6QEK/KL7> W1JR R-14	202930	-4	0.1	1525	~ KE9BGK C6AVD +06
203000	-18	0.2	1663	~ CQ PU2VJI GG65 Brazil	202945	Tx		1750	~ C6AVD N2WPT FN30
203000	-22	0.4	1250	~ CQ PP5TG GG53 Brazil	203000	-15	0.2	1526	~ KE9BGK C6AVD RR73 Bahamas
					203015	Tx		1750	~ C6AVD N2WPT FN30

12m 24.915 000

H DX Call DX Grid

FT8 C6AVD

MSK Lookup Add Ignore

Q65

JT65

2025 Jan 02 20:30:17

Tx: C6AVD N2WPT FN30 FT8 17 Last Tx: C6AVD N2WPT FN30

2/15 WD:8m

WSJT-X Improved

- <https://sourceforge.net/projects/wsjt-x-improved/files/>
- Find out more about wsjt-x_improved | SourceForge.net
- Has everything the standard program has with additional convenience features:
 - Three different GUIs
 - Right click for transmit
 - Optional band buttons
 - Advanced highlighting options
 - Call waiting features
 - Convenient filters for areas
 - And more see “find out more” PDF file

Summing up

- If can't hear (decode) them, you can't work them
- Hit them where they ain't/ Go for the gaps
- JT Alert is a great add on
- Don't forget FT4
- A wire antenna and a good tuner will allow you to work more bands, but watch out for full power rating
- Two monitors are helpful
- The WARC bands are perfect for FT8
- Use at least the 2.7 version of WSJT-X
- F/H is a very powerful DX tool
- Thank you for listening!

Thank you for listening de:

