

How to Setup Your Transceiver and get on the air for Most Digital Modes, and Specifically on the

ICOM 7300 for FT-8

These notes are not meant to provide the answers on how to get you up and running on FT-8, but rather it is a presentation of how I have been able to set up my IC-7300 for best performance in this mode. All settings referenced are the ones I currently use on my 7300 and I have to this date made about 10,000 confirmed contacts, so at least I can say they work for me. They are not meant to give you a comprehensive understanding nor a foolproof setup but should be a good starting point. Good luck..... Mert Kenniston KC1KVA

- Download and Install Driver from your IC-7300 CD or the ICOM website on your computer (or from your transceiver manufacturer's website)**
- Install required cable – Standard USB with the Type B Square End to your transceiver and a standard USB Type A end on the computer side.**

Note: If you are not using the IC-7300 check you transceiver manual to determine if your transceiver has a built in sound card. If it does not, you will need an outboard unit to act as your sound card, connected between your computer and the transceiver. Popular models of this interface are Signalink Tigertronic unit, MFJ's Digi Link, West Mountain's Rig Expert or Rig Blaster or Yaesu's digital interface box. You will probably need a special cable from the interface manufacturer to connect. Make sure you have the right pin wiring set up on the unit.

1. Setup IC-7300 Switches

<u>a. Switches:</u>	<u>Selection:</u>
2. <i>Preamp (Front panel button)</i>	<i>Off (except for very weak stations)</i>
3. <i>Function, AGC:</i>	<i>Off</i>
4. Menu, Set, Connectors:	
a. <i>Data Mode:</i>	<i>USB</i>
b. <i>ACC/USB Output Select</i>	<i>AF</i>
c. <i>ACC/AF Output Level</i>	<i>50%</i>
d. <i>ACC/USB AF SQL</i>	<i>Off (Open)</i>
e. <i>ACC/USB Beep/Speech</i>	<i>Off</i>
f. <i>ACC/USB IF Output Level</i>	<i>50%</i>
g. <i>ACC MOD Level</i>	<i>50%</i>
h. <i>USB MOD Level</i>	<i>40 to 50%</i>
i. <i>DATA OFF MOD</i>	<i>MIC,ACC</i>
j. <i>DATA MOD</i>	<i>USB</i>
k. <i>USB Serial Function</i>	<i>CI-V</i>
l. <i>USB SEND</i>	<i>RTS or DTR</i>
m. <i>USB Keying (CW)</i>	<i>DTR</i>
n. <i>USB Keying (RTTY)</i>	<i>DTR</i>
5. Menu, Set, Connectors, CI-V:	
i. <i>CI-V Baud Rate</i>	<i>Auto</i>
ii. <i>CI-V Address</i>	<i>94h</i>
iii. <i>CI-V Transceive</i>	<i>Off</i>
iv. <i>CI-V USB Remote Transceive</i>	<i>00h</i>
v. <i>CI-V Output (for ANT)</i>	<i>Off</i>
vi. <i>CI-V USB Port</i>	<i>Unlink Remote</i>
vii. <i>CI-V USB Baud Rate</i>	<i>Auto</i>
viii. <i>CI-V USB Echo Back</i>	<i>On</i>

2. **Download WSJT-X Users Guide** Check out the *FT-8 Portion of the guide*

3. **Download WSJT-X Software** *Do Search for WSJT-X PrincetonPhysics*

4. **Setup WSJT-X** *Review On-Line Users Guide for WSJT-X 2.5*

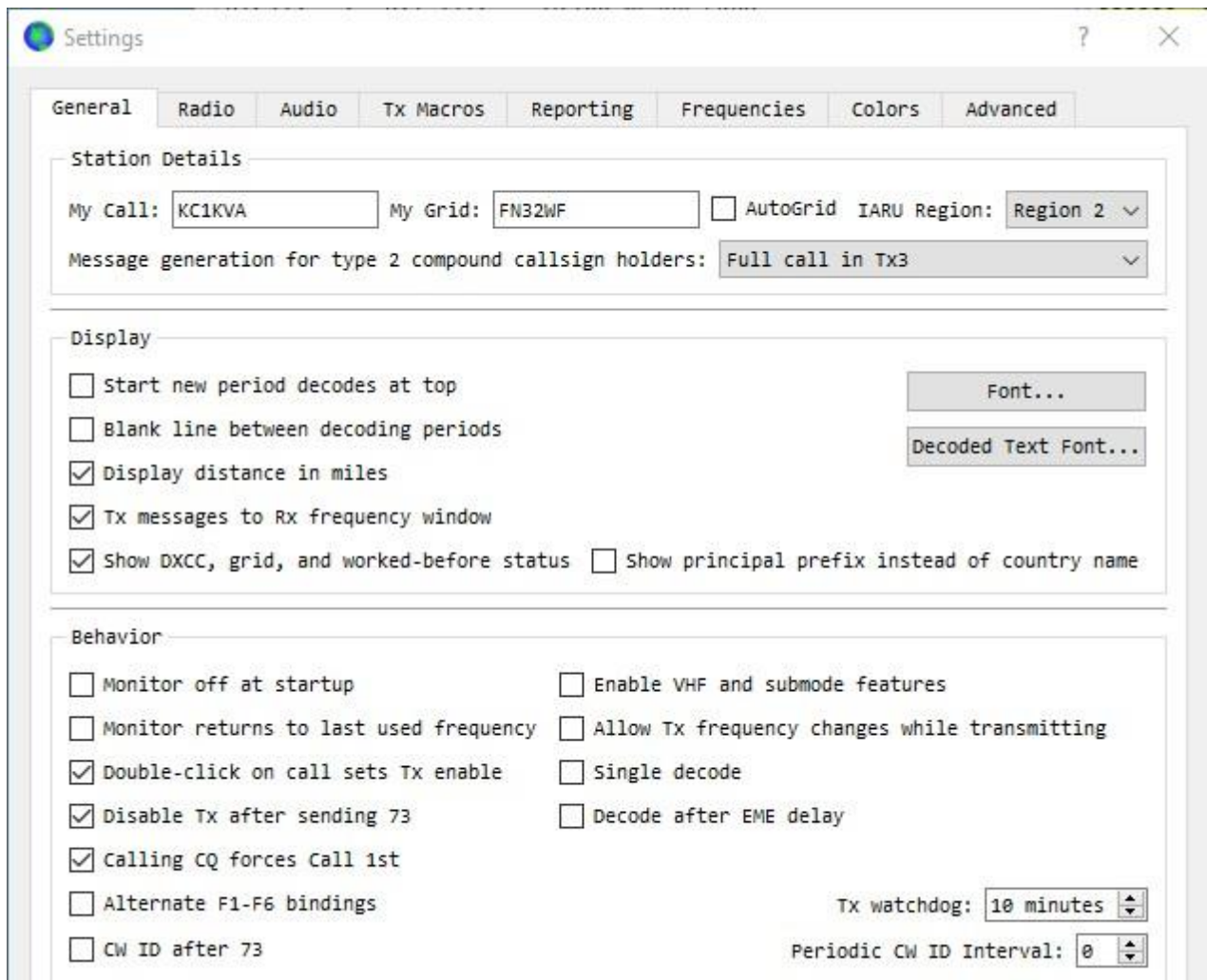
Start WSJT-X – Then at top of screen select:

*View – Click on **waterfall***

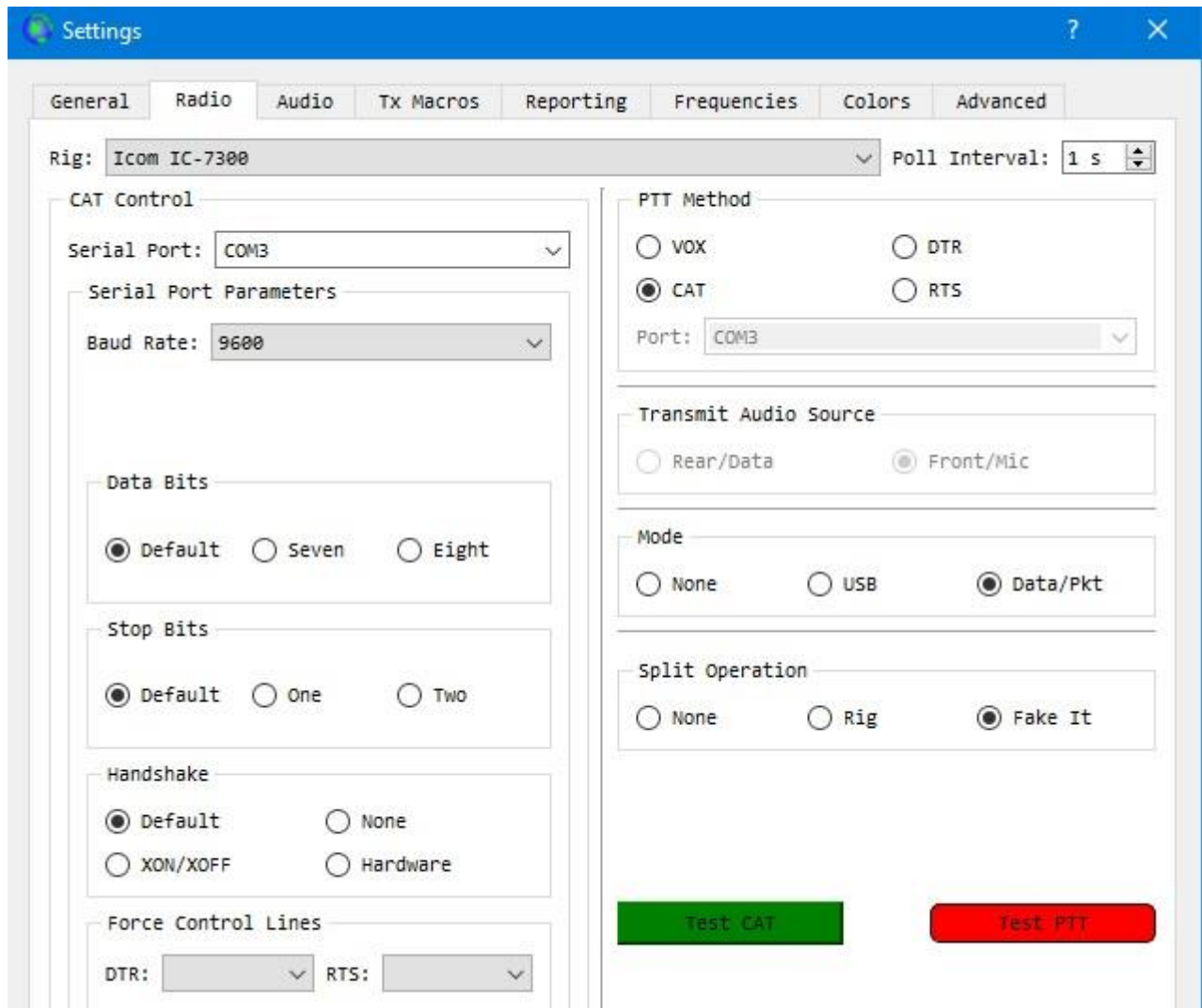
*Mode – Click on **FT-8***

*Decode – Click on **Normal***

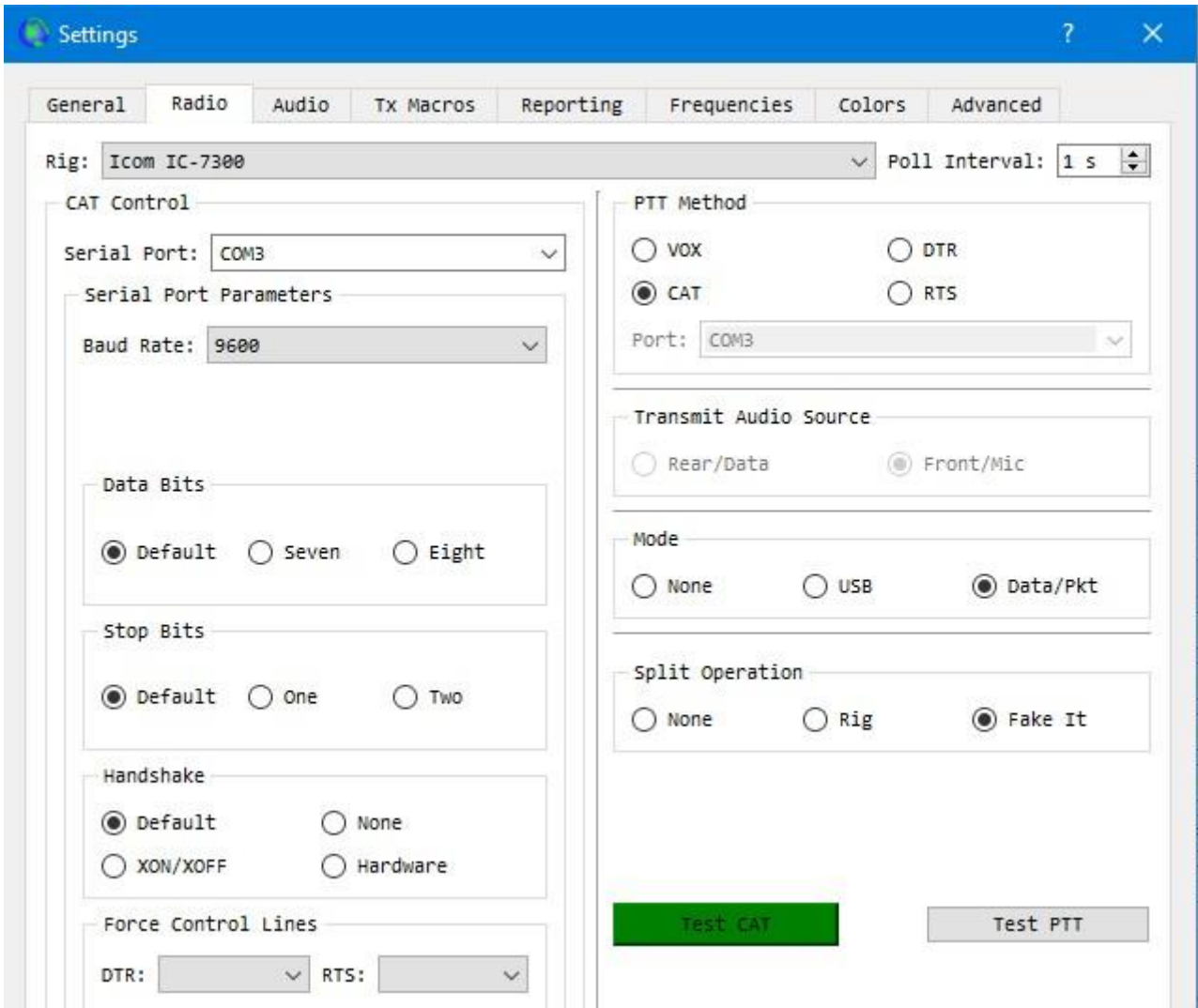
*At top of WSJT screen Click on **FILE**, then on **Settings** then on **General***



Then click on RADIO



Then click on **Audio**



5. WSJT-X Screens

Main Screen

Click on a CQ entry to initiate a response

WSJT-X v2.5.4 by K1JT, G4WJS, K9AN, and IV3NWW

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message
163445	12	-0.2	2412	~ CQ W8KF EN81 U.S.A.
163445	-2	0.1	948	~ AD8HK AC9HP EM69
163445	-4	0.1	2324	~ CQ M0DHO IO91 England
163445	-3	0.1	1717	~ CQ WY0V EN12 U.S.A.
163445	-17	0.1	1542	~ CQ F1DXP JN05 France
163445	-17	0.1	735	~ <...> DL1ASR JO51
163445	-20	0.1	1473	~ SX338M <...> RR73
163445	-16	0.1	1089	~ VK2LAW DL1MKW JO40
163445	-19	-0.0	2555	~ CQ MU0FAL IN89 Guernsey
163445	-10	0.2	2297	~ VK2LAW K6EU -09
163500	10	0.1	967	~ CQ EA1DR IN82 Spain
163500	31	0.1	2514	~ TK5IH NF4A -07
163500	9	0.1	1452	~ N2KI KA0BOJ +14
163500	-10	0.1	1256	~ CQ N6HEK DM14 U.S.A.
163500	16	-0.2	1202	~ CQ CO2JD EL83 Cuba
163500	12	0.1	1639	~ IS0AEL K5DZY RR73
163500	-12	0.2	1110	~ CQ WB0MH DN70 U.S.A.
163500	1	0.1	511	~ F5CT W0AV R-06
163500	-9	0.1	2224	~ IK8ERL J79WTA -11
163500	-24	0.1	419	~ TK5IH KD4CJO R-13
163500	-4	0.3	940	~ KF5WCP KF5TVG EM26
163515	22	0.1	518	~ EB5A K5AKM R-11
163515	8	0.1	1409	~ N6DN WD3NA +02
163515	14	0.2	2303	~ CQ HI8ARJ FK48 Dominican Rep.
163515	11	0.4	1064	~ J69DS AA6DW CM94
163515	-7	0.2	1584	~ W0AV F5CT RR73
163515	14	0.1	2814	~ CQ DX N5ZY EM15 U.S.A.
163515	22	0.2	604	~ CQ N5IF EM11 U.S.A.
163515	9	0.7	748	~ CQ CO8LY FL20 Cuba
163515	-1	0.1	1820	~ KA0BOJ N2KT R+03

Rx Frequency

UTC	dB	DT	Freq	Message
163515	14	0.2	2303	~ CQ HI8ARJ FK48 Dominican Rep.
163530	Tx		2300	~ HI8ARJ KC1KVA FN32
163545	4	0.1	2303	~ KC1KVA HI8ARJ -03
163600	Tx		2300	~ HI8ARJ KC1KVA R+04
163615	2	0.2	2303	~ KC1KVA HI8ARJ RR73
163630	Tx		2300	~ HI8ARJ KC1KVA 73
163645	4	0.2	2304	~ CQ HI8ARJ FK48 Dominican Rep.
163715	-4	0.2	2303	~ WI4B HI8ARJ +21
163745	1	0.2	2303	~ WI4B HI8ARJ RR73

CQ only
 Log QSO

 Menus

12m
 S
24.915 000

Tx even/1st
 Hold Tx Freq

TX 2300 Hz
 RX 2303 Hz
 Report 4

Auto Seq
 Call 1st

DX Call: HI8ARJ DX Grid: FK48

Az: 177 1635 mi

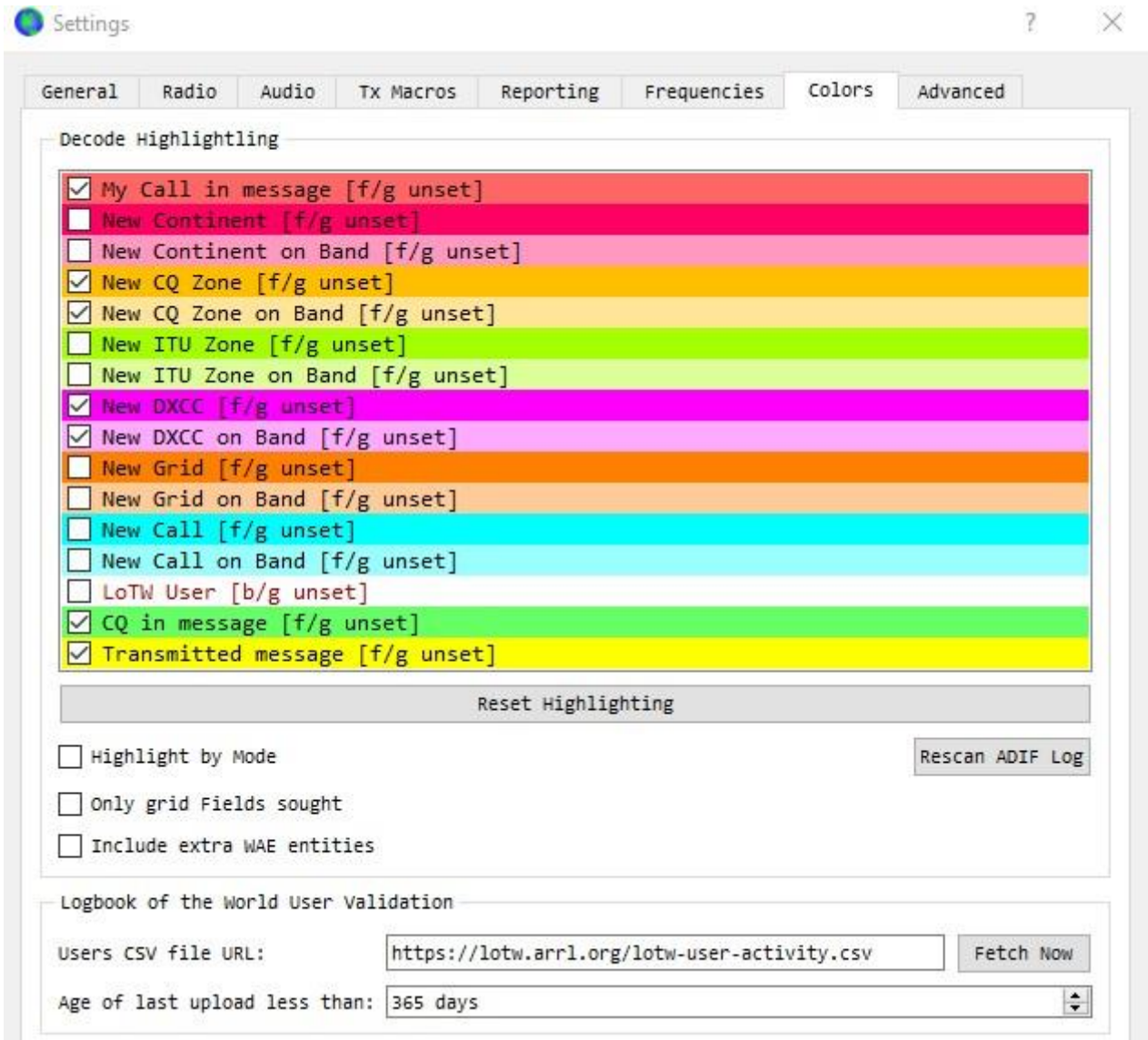
2022 Dec 04
16:38:40

Generate Std Msgs

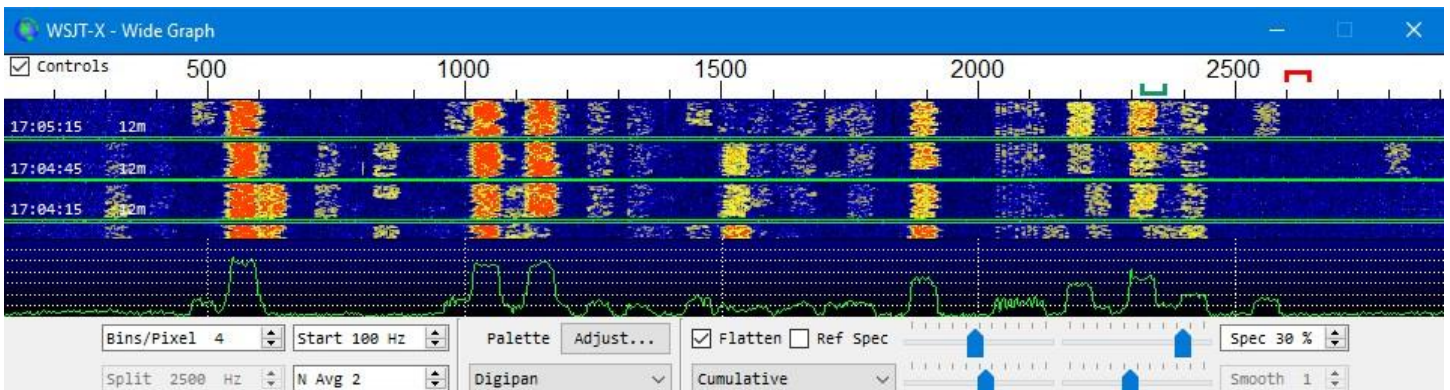
Next	Now
HI8ARJ KC1KVA FN32	<input type="radio"/> TX 1
HI8ARJ KC1KVA +04	<input type="radio"/> TX 2
HI8ARJ KC1KVA R+04	<input type="radio"/> TX 3
HI8ARJ KC1KVA RR73	<input type="radio"/> TX 4
HI8ARJ KC1KVA 73	<input type="radio"/> TX 5
CQ KC1KVA FN32	<input checked="" type="radio"/> TX 6

FTR
 Last Tx: HI8ARJ KC1KVA 73 14 0/15 10m

Color codes (file, settings, colors)



Waterfall enable with "View" (top menu)



Jt Alert – Main Screen

JtAlert 2.50.1 KC1KVA [80m,FT8,ACL,Filter,#1] (Updates)

Alerts Settings View Sound OFF Help

KE4EM ROBERT EM74 0.1 1200 United States GA 5 8 NA Q

New Band Name QTH Grid Comments PWR Time Country Name State CQ ITU Cont. QSL

FT8 Band : 160 80 60 40 30 20 17 15 12 10 6 4 2 # | FT4 Band : 160 80 60 40 30 20 17 15 12 10 6 4 2 # | ✓ Wrk

Callsign : ✓ | Callsign : 0 | ✓ Cfm

DXCC : ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | DXCC : 0 |

US State : ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ | US State : 0 |

JT Alert Callsign Window

Callsigns #1 : 12m FT8 [Filtered]

KE5AZ TX U.S.A. KA0BOJ B4 U.S.A. J79WTA B4 Dominica N2EDU B4 U.S.A. CU7AA Azores K0HKL SD U.S.A. EA4DB Spain J69DS St. Lucia K6BLG CA U.S.A. G4NXG/M England

XE2YWB Mexico W7RIT WA U.S.A. K1VU CT U.S.A. WC7F B4 U.S.A. CT1DHX Portugal AA4CB FL U.S.A. N0HYG KS U.S.A. EC1CS Spain PV8AJ Brazil EA1DR B4 Spain C02JD Cuba

N0HYG KS

16:58:54 21 1 DT+0.1 N0HYG

6. Time.is

*Check your time sync delta. >1.5 seconds is problem
Which will be red flagged on mail WSJT screen.*

7. Sync your clock

Net Time, Dimension 4, or Meinberg NTP

8. Time to Test Your Setup

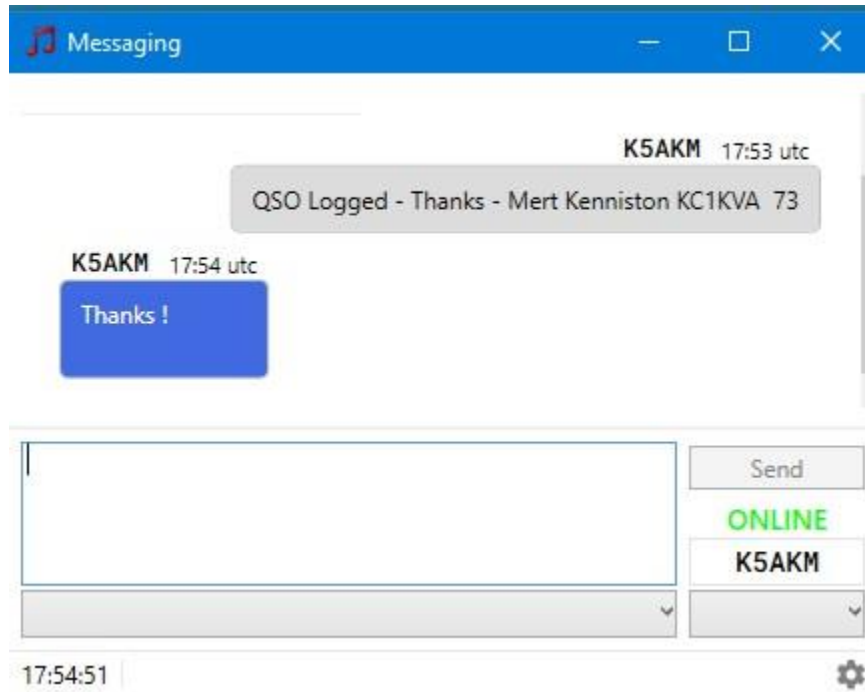
*WSJT-X and transceiver now have preliminary setup
Solve any configuration and test problems before
continuing*

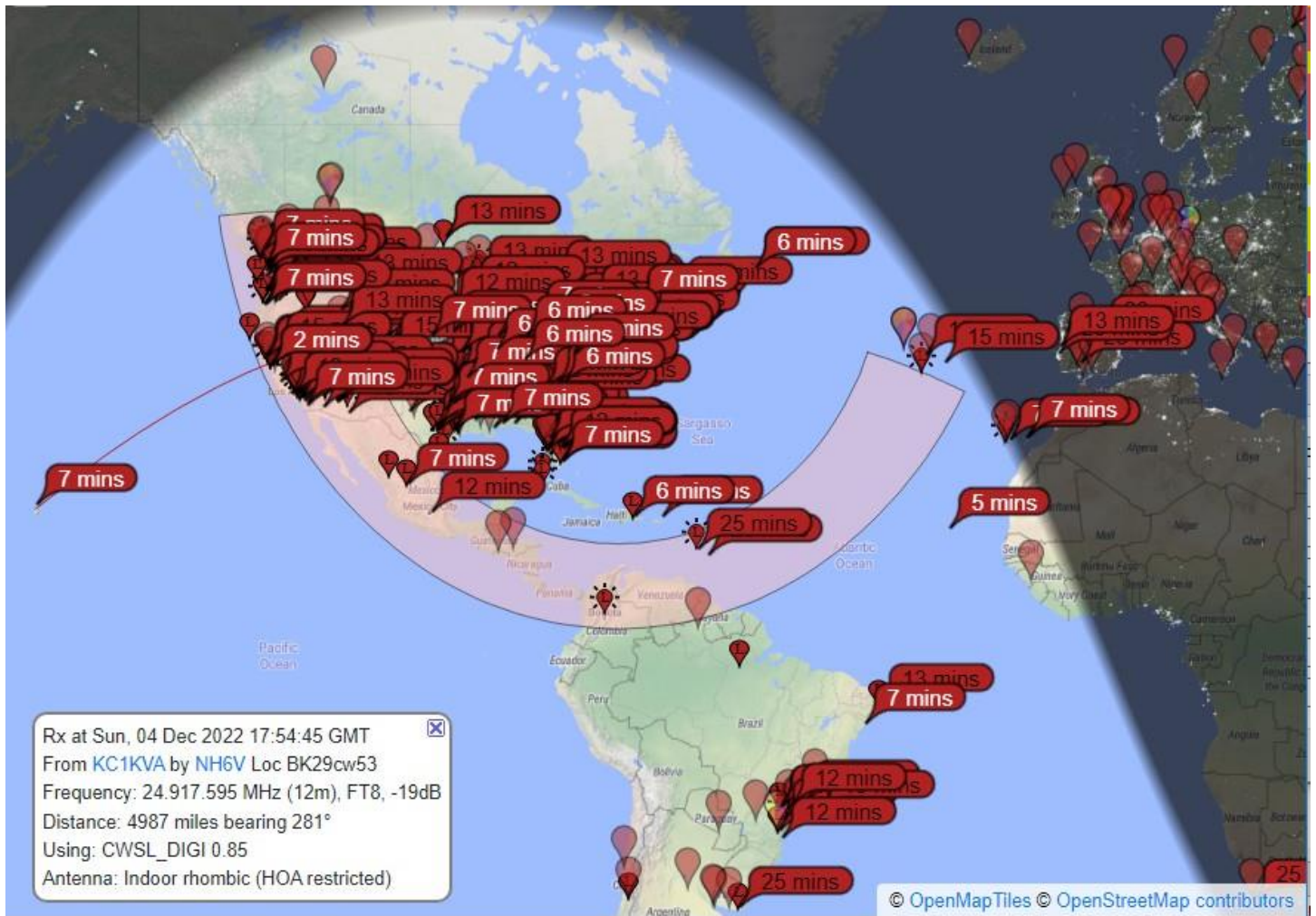
*CAT and PTT Test buttons on WSJT should work.
Test Cat should turn Green, PTT Should turn Red*

- 9. **Load & setup JT Alert if Wanted** *Online: HamApps.com*

- 10. **Auto ACLog Interface** *Allows automatic logging to ACLog*

- 11. **JT Alert Messaging** *Message your FT- Contacts*





- 12. **PSK Reporter** *See who received your signals*
- 13. **QRZ** *For more detail on your contacts*
- 14. **Upload to QRZ & LOTW** *Save from wsjt log.adi to LOTW and/or QRZ*