

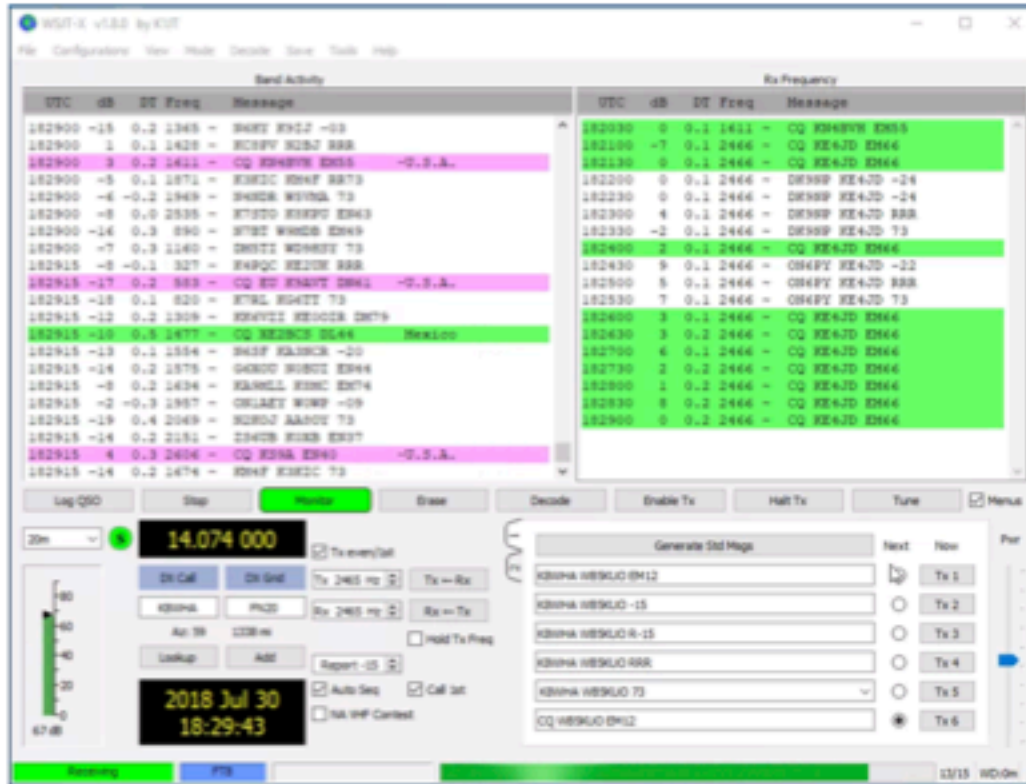
# GETTING STARTED ON FT8

The screenshot displays a radio operator's workstation. The main window is 'WSJT-X v1.8.0 by K1UT', which includes a 'Wide Graph' at the top showing a waterfall plot of radio frequencies. Below the graph is a list of active stations with columns for UTC, dB, DT, Freq, and Message. The 'Prog TT-150' window shows a digital display of '14074.000' and '14070.000'. A 'Solar-Terrestrial Data' widget is visible in the bottom right corner, showing various space weather metrics. The Windows taskbar at the bottom shows the time as 1:22 PM on 7/30/2018.

UTC	dB	DT	Freq	Message
182115	-13	0.1	2391	GD43PA R43RT EM77
182115	-9	0.3	2404	CQ K3SA EM40 -0.5.A.
182130	0	0.1	2464	CQ K6JTD EM44 0.5.A.
182130	-4	0.4	1194	CQ K4RTY EM43 0.5.A.
182130	-14	0.1	1365	CQ K3JZ EM52 0.5.A.
182130	-2	0.2	1431	CQ K649YV EM55 -0.5.A.
182130	-4	-0.1	1747	WJKE WFSO 73
182130	0	-0.2	1871	AZSTG R04F BR73
182130	-15	0.2	2044	AA80Y W90B R-05
182130	-5	0.1	2122	EA1NS AP4R PH05
182145	-16	0.3	822	87RL W9R5Y R-04
182145	0	1.5	941	OR1RXR W9LOD EM52
182145	-16	-0.2	1295	8F2RQ K44CE PH04
182145	-11	0.2	1477	CQ XE29CB SE44 Mexico
182145	-19	0.3	1554	CQ KA3PCR EM43 -0.5.A.
182145	-1	0.2	1957	CQ W0WP EM42 -0.5.A.
182145	-5	0.3	2049	87RL W9R5Y EM41
182145	-16	0.2	2285	8G5MKT K8BL 73
182145	-11	0.1	2391	GD43PA R43RT EM77
182145	-1	0.3	2404	CQ K3SA EM40 -0.5.A.
182145	-15	0.2	1309	8F5VOT XE001B EM79

Craig J Coley, WB5KUU

# WHAT IS FT8?



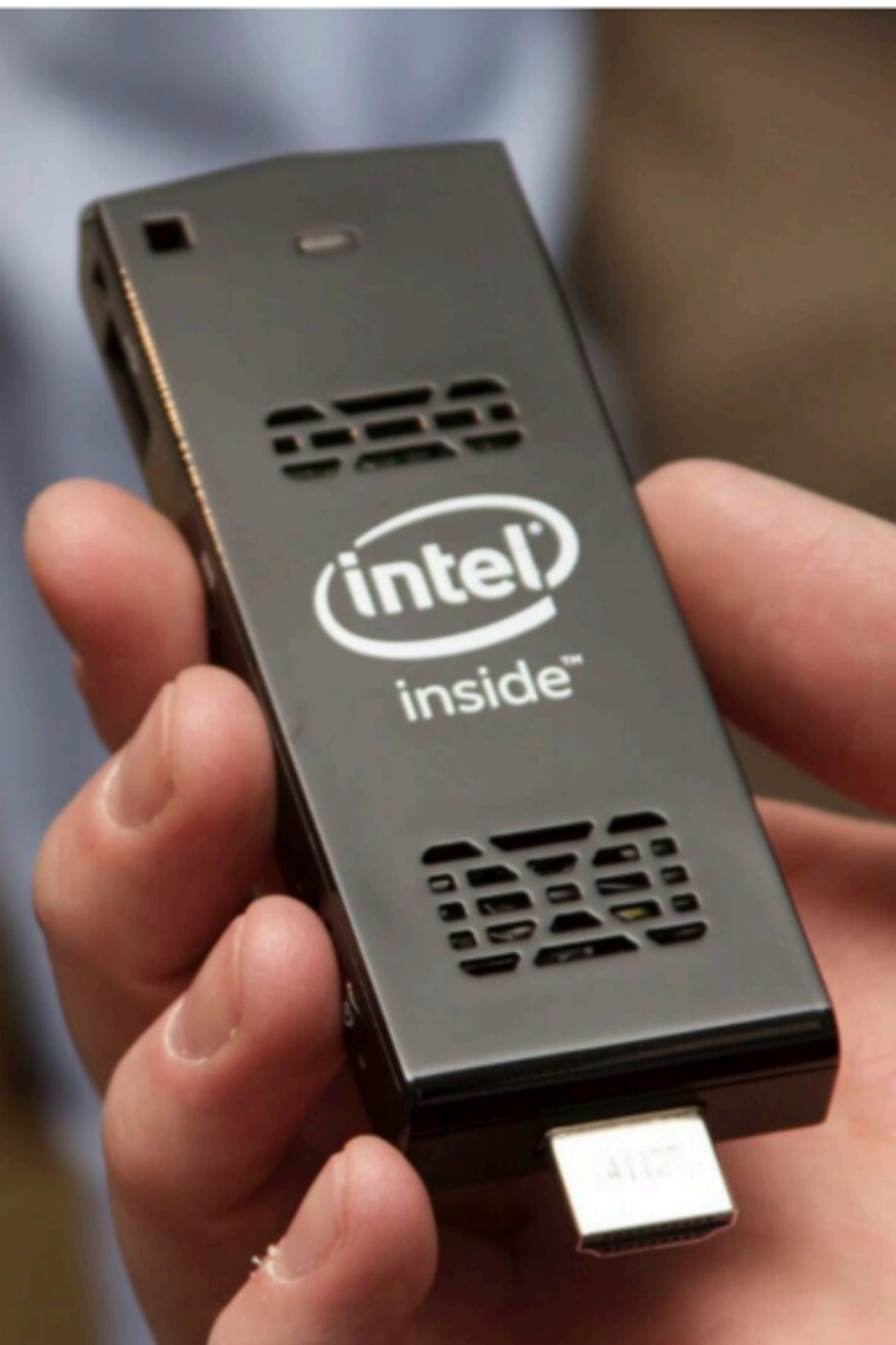
- A new digital mode in 2017.
- Created by Joe Taylor, K1JT and Steve Franke, K9AN.
- Occupies only 50Hz, ideal for the crowded HF bands.
- Uses sophisticated Forward Error Correction (FEC).
- Consistent copy 20 decibels below the noise floor.
- Complete QSOs in under two minutes.



## WHY FT8?

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- Great digital mode for low power and when band conditions are poor.
- Semiautomatic operation makes it easy to use.
- Automatically creates ADIF log entries accepted by LoTW.
- I received the Worked All States (WAS) award in 6 weeks and have worked 45 countries in 4 months using only 75 Watts.
- Ideal for remote operation.
- All required software is free.



## EXPENSIVE COMPUTER? NO!

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- WSJT-X is well written and very efficient with resources.
- Native Windows 10 is highly recommended due to stability, speed, and update availability.
- All functions easily handled by a \$125.00 Windows 10 Intel Stick PC, USB keyboard, and USB Hub.
- I routinely operate the computer and station remotely with no loss of performance.



## RIG INTERFACE

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- WSJT-X and FT8 is compatible with nearly all commercial digital mode rig interfaces.
- Very easy to build your own audio interface with a \$15.00 USB sound card.
- My rig and audio interface for a Ten Tec Jupiter cost less than \$25.00 for a USB sound card and USB serial port.
- As with any computer/rig interface, good antenna matching and rig grounding must be observed.



## SOFTWARE- WSJT-X

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- Download from:  
<https://physics.princeton.edu/pulsar/k1jt/wsjtx.html>
- Controls Digital Mode, Sound Card, and Rig.
- Support WSPR, JT9 and JT65 for HF as well as FT8.
- Must be setup to point to dedicated sound card and rig type.
- Can optionally upload received contacts to PSK Reporter.
- Free Software

JTAlertX : Alert Types

Alert Types	
ON <input checked="" type="checkbox"/>	Own Call
OFF <input type="checkbox"/>	CQ and QRZ
OFF <input type="checkbox"/>	Wanted Callsign
OFF <input type="checkbox"/>	Wanted Prefix
OFF <input type="checkbox"/>	Wanted Grid
ON <input checked="" type="checkbox"/>	Wanted US State
ON <input checked="" type="checkbox"/>	Wanted DXCC
OFF <input type="checkbox"/>	Wanted CQ Zone
OFF <input type="checkbox"/>	Wanted Continent
OFF <input type="checkbox"/>	Wanted CQ Marathon
OFF <input type="checkbox"/>	Ignored Callsign
ON <input checked="" type="checkbox"/>	Worked B4
OFF <input type="checkbox"/>	Decode Keywords
	No Alert

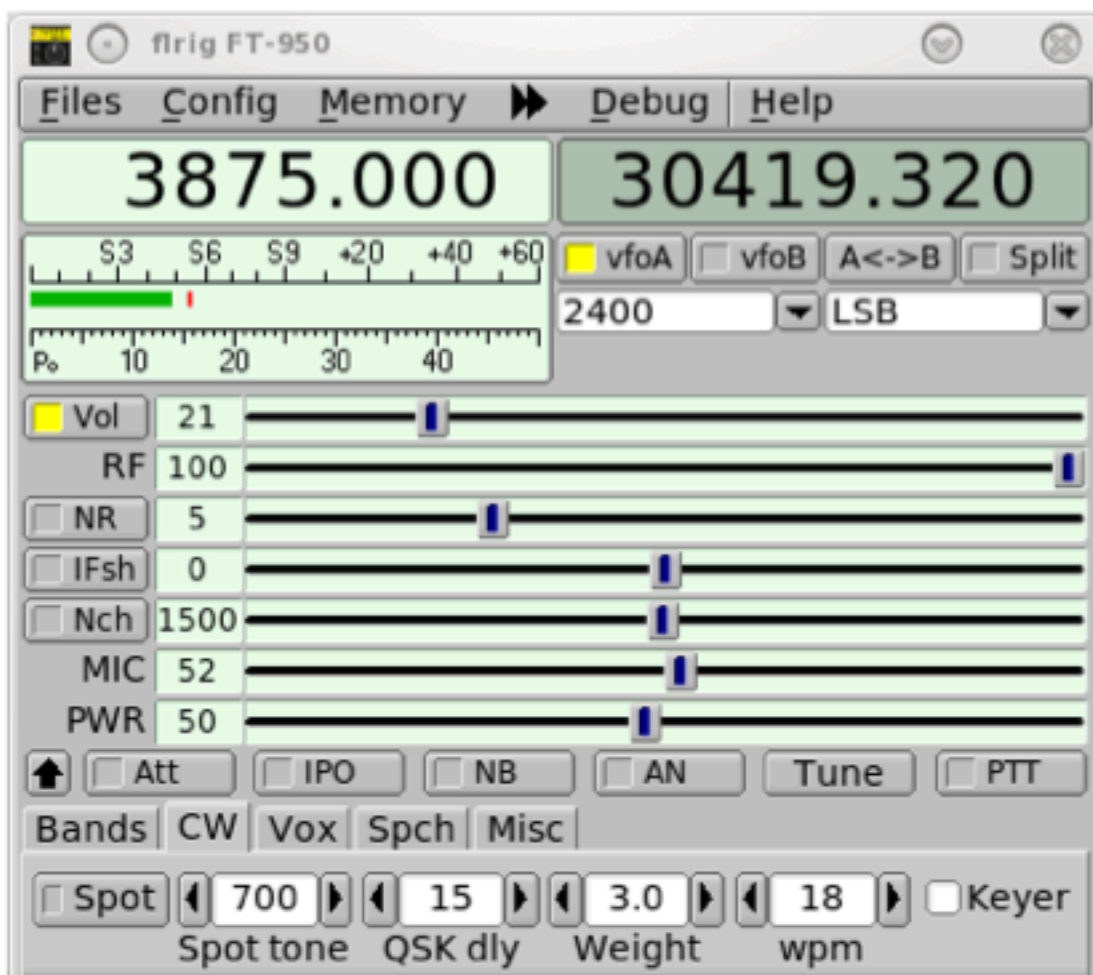
## SOFTWARE- JTALERT

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- Download from:  
<https://hamapps.com/>
- Interfaces with WSJT-X to display stations, location, and previous contact information.
- Displays user specified stations and/or locations as shown at left.
- Displays band condition A and K values as well as the number of contacts processed by band.
- Free Software

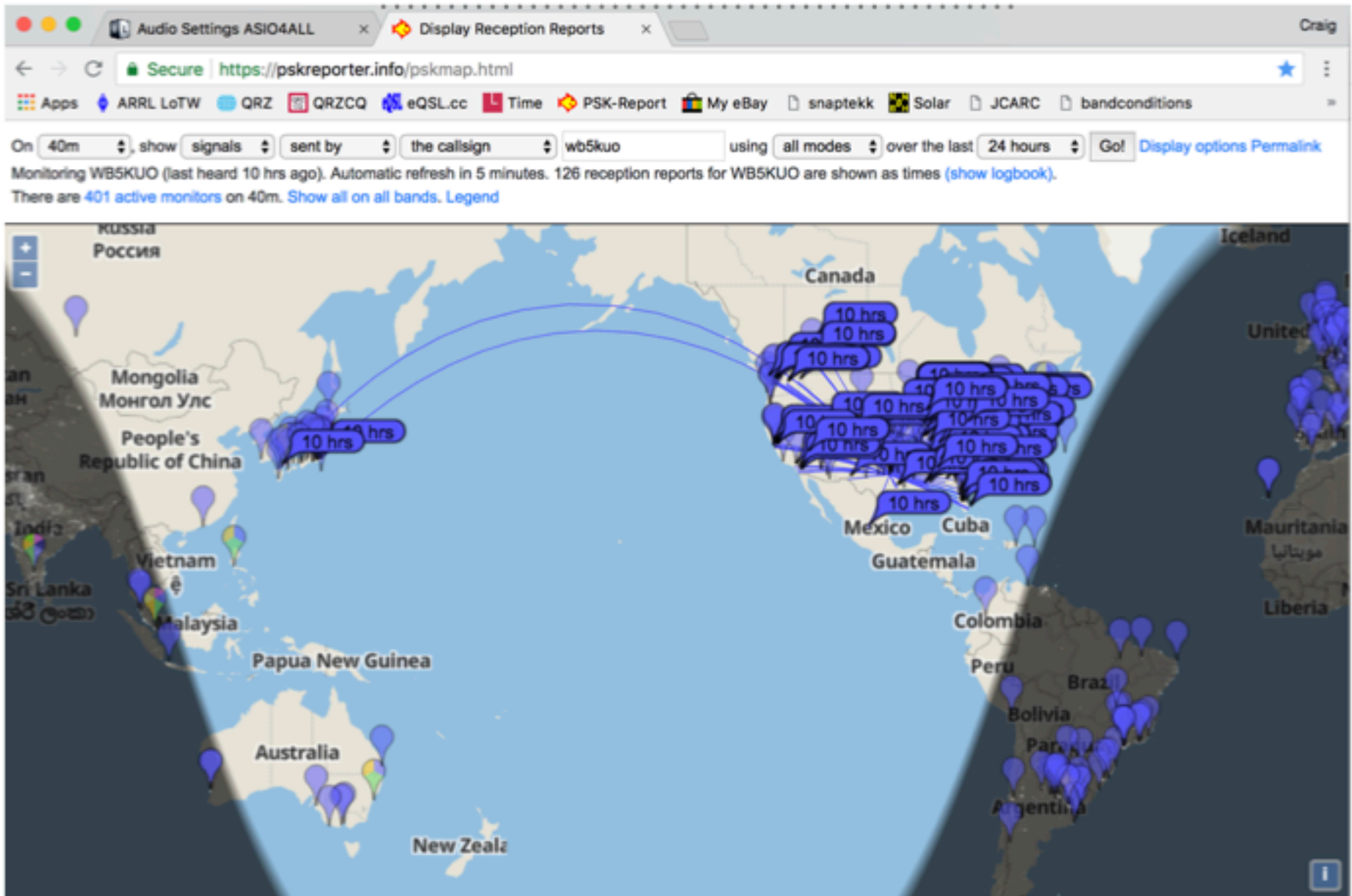
# SOFTWARE- FLRIG

- Download from:  
<http://www.w1hkj.com/>
- Optional alternate rig control over WSJT-X direct control.
- Communicates directly with WSJT-X without intervention.
- Provides more control options like S-Meter, Power and SWR.
- Free Software





# WEBSITE- PSKREPORTER.INFO



WAS Award	New LoTW QSLs	LoTW QSLs in Process	WAS Credits Awarded	Total
<a href="#">Mixed</a>	50	0	0	50
<a href="#">160M</a>	25	0	0	25
<a href="#">80M</a>	39	0	0	39
<a href="#">40M</a>	37	0	0	37
<a href="#">30M</a>	42	0	0	42
<a href="#">20M</a>	39	0	0	39
<a href="#">17M</a>	41	0	0	41
<a href="#">15M</a>	23	0	0	23
<a href="#">12M</a>	15	0	0	15
<a href="#">10M</a>	32	0	0	32
<a href="#">Digital *</a>	0	0	50	50
<a href="#">FT8 *</a>	0	0	50	50
<a href="#">Digital 160M</a>	25	0	0	25
<a href="#">80M Digital</a>	39	0	0	39
<a href="#">40M Digital</a>	37	0	0	37
<a href="#">30M Digital</a>	42	0	0	42
<a href="#">20M Digital</a>	39	0	0	39
<a href="#">17M Digital</a>	41	0	0	41
<a href="#">15M Digital</a>	23	0	0	23
<a href="#">12M Digital</a>	15	0	0	15
<a href="#">10M Digital</a>	32	0	0	32
<a href="#">Triple Play</a>	50	0	0	50
<a href="#">5-Band</a>	170	0	0	170

\* = Award has been issued

## FT8 PERFORMANCE-WAS

- LoTW verified contacts at left made from March 1, 2018 to July 30, 2018.
- Maximum power of 75W into a no-tune bidirectional vertical rhombic.
- ARRL WAS award issued for Digital and FT8 after six weeks.
- Good performance across all HF bands.
- Contacts made even when band is closed to SSB.

## FT8 PERFORMANCE- DXCC

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DXCC Award	New LoTW QSLs	LoTW QSLs in Process	DXCC Credits Awarded	Total (All)	Total (Current)
<a href="#">Mixed</a>	45	0	0	45	45
<a href="#">Digital</a>	45	0	0	45	45
<a href="#">160M</a>	2	0	0	2	2
<a href="#">80M</a>	5	0	0	5	5
<a href="#">40M</a>	8	0	0	8	8
<a href="#">30M</a>	18	0	0	18	18
<a href="#">20M</a>	12	0	0	12	12
<a href="#">17M</a>	24	0	0	24	24
<a href="#">15M</a>	10	0	0	10	10
<a href="#">12M</a>	1	0	0	1	1
<a href="#">10M</a>	4	0	0	4	4
<a href="#">Challenge</a>	84	0	0	---	84

\* = Award has been issued

- LoTW verified contacts at left made from March 1, 2018 to July 30, 2018.
- Maximum power of 75W into a no-tune bidirectional vertical rhombic.
- Good performance across all HF bands.
- Contacts made even when band is closed to SSB.



# WB5KU0 STATION OPERATING FT-8

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**QUESTIONS?**