



FT8 Digital Mode DX Fun with Modest Equipment

David Haworth

WA9ONY


David A Haworth
27901 NE 63rd St
Camas, WA 98607
USA
Loc:CN85tq ITU:6 CQ:3 Clark County
David Haworth, WA9ONY, SKCC #16405
<http://www.stargazing.net/david>
<https://www.qrz.com/db/WA9ONY>



To: RI1ANC This confirms our 2-way FT8 QSO
Date: October 6, 2017 Time: 03:11 UTC
Band: 20M UR Sigs: -12

WA9ONY/KH6

David A Haworth
4531 Wailapa Rd
Kilauea, HI 96754
USA
Loc:BL02he ITU:61 CQ:31 Kauai County
IOTA:OC-019
73, David
www.qrz.com/db/WA9ONY/KH6
www.stargazing.net/david



To: SAMPLE This confirms our 2-way FT8 QSO
Date: February 10, 2018 Time: 00:00 UTC
Band: 20m UR Sigs: +00

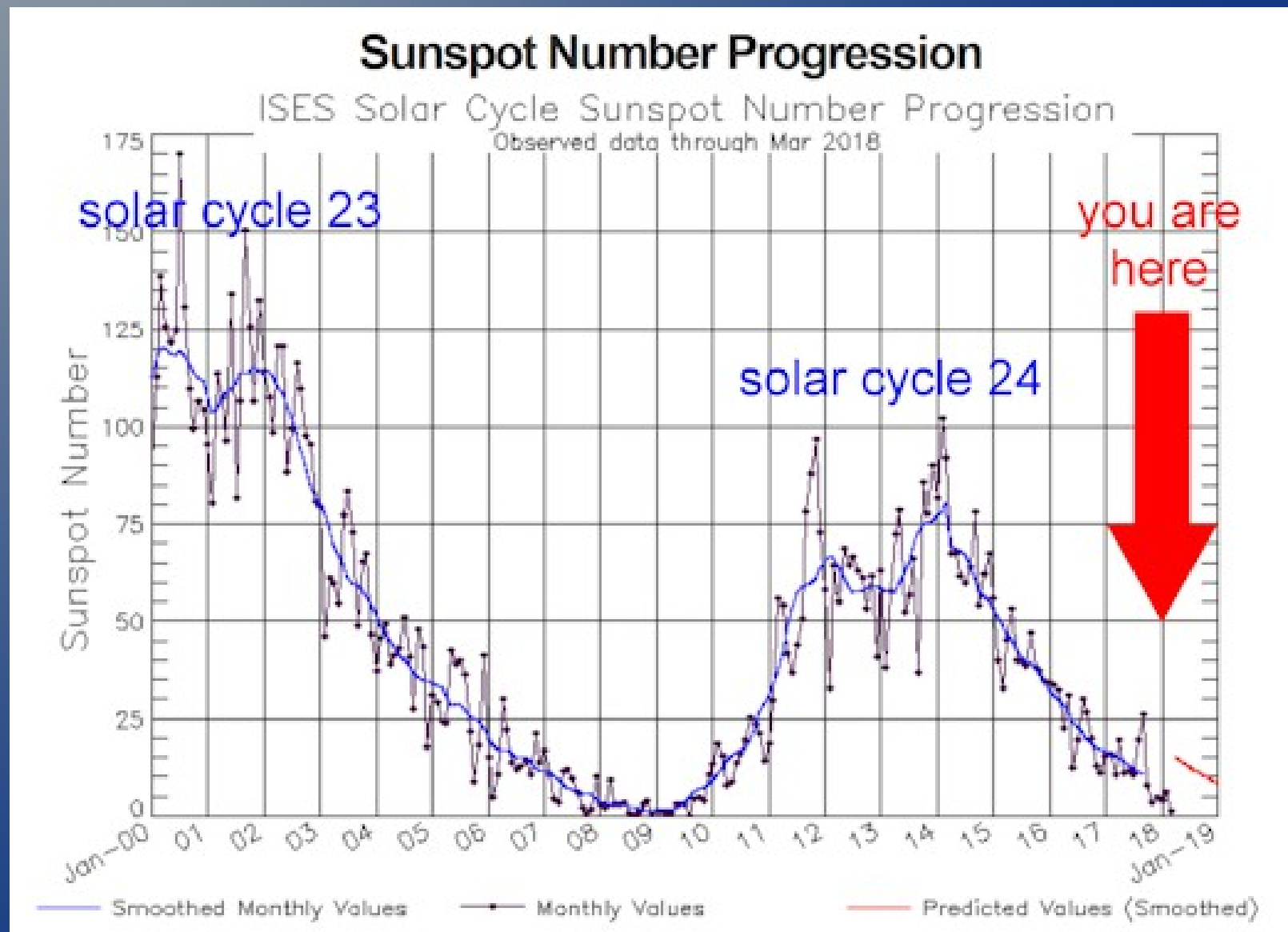
Agenda

- Introduction
- Software
- Setup
- Operation
- Email lists for getting help
- More FT8 information

Who has used FT8?

Sunspots Vanishing Faster than Expected

<https://spaceweatherarchive.com/2018/05/01/sunspots-vanishing-faster-than-expected/>



Joe Taylor K1JT



- Taylor would agree. As he sees it, FT8 won't replace modes such as CW or SSB. “Nevertheless, it's clear that — at least in the short term — many **hams enjoy making rapid-fire minimal QSOs** with other hams, all over the world, **using modest ham equipment**,” he said. “For this purpose, FT8 shines.”

<http://www.arrl.org/news/new-digital-modes-changing-complexion-of-bands-and-perhaps-of-ham-radio>

Joe Taylor K1JT



- “It is allowing people who have **smaller stations** the opportunity to get on and use their radios and a computer to **make contacts they never would have been able to make**. This is great for ham radio!”

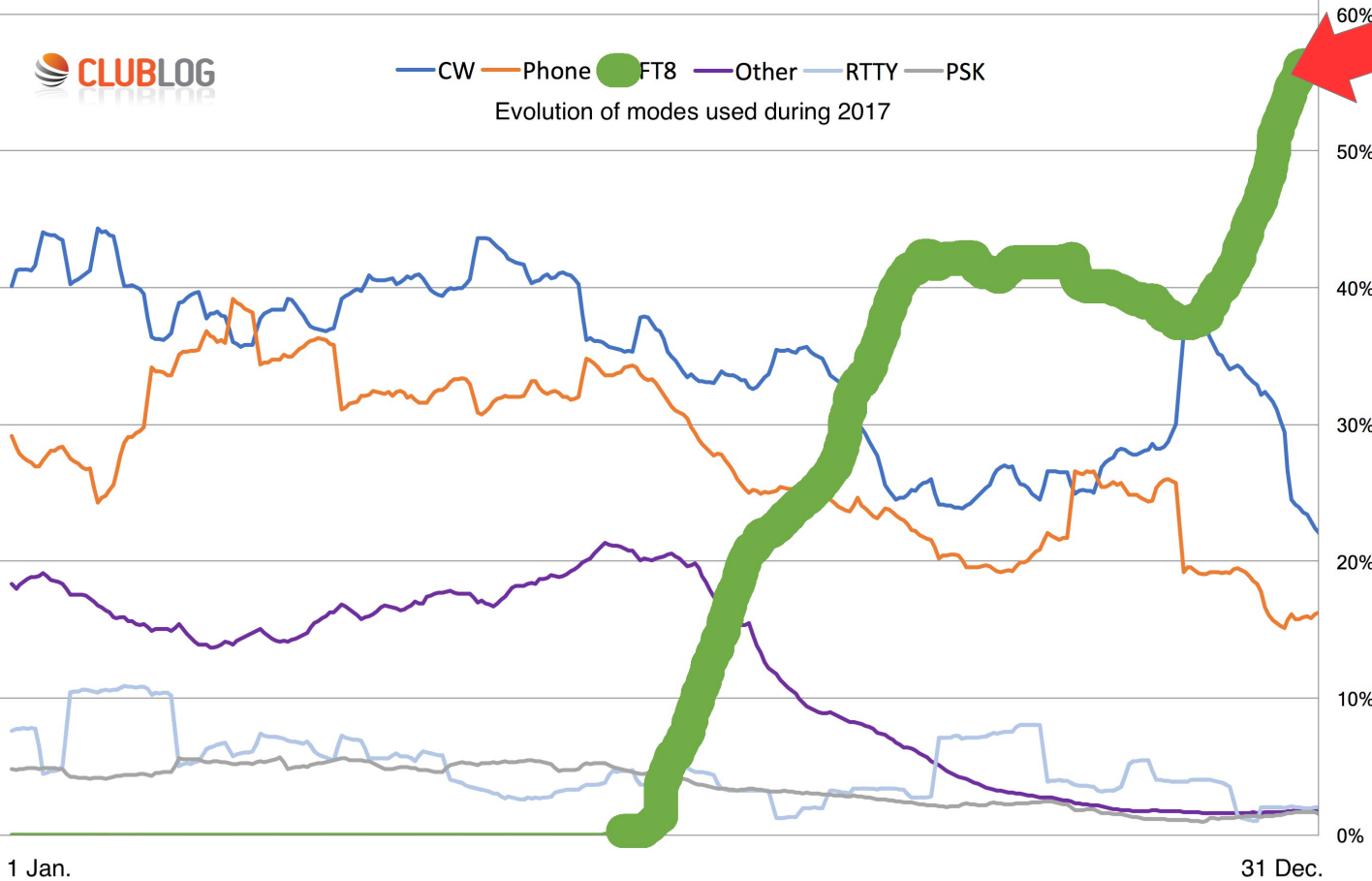
<http://www.arrl.org/news/new-digital-modes-changing-complexion-of-bands-and-perhaps-of-ham-radio>

2017 Club Log Modes

<https://g7vjr.org/2018/01/proportion-of-modes-used-on-the-air-2017-update/>



— CW — Phone — FT8 — Other — RTTY — PSK
Evolution of modes used during 2017



Weak-Signal S/N Limits

Mode	(B = 2500 Hz)
SSB	~+10 dB
MSK144	- 8
CW, "ear-and-brain"	-15
FT8	-21
JT4	-23
JT65	-25
JT9	-27
QRA64	-27
WSPR	-31

Work the World with WSJT-X Dr. Joe Taylor

WA9ONY

- CN85tq, Camas WA
- >4,100 FT8 QSOs since 2017/8/25
 - 160m to 70cm
 - No FT8 on 60m & 1.25m yet
- www.qrz.com/db/WA9ONY



WA9ONY

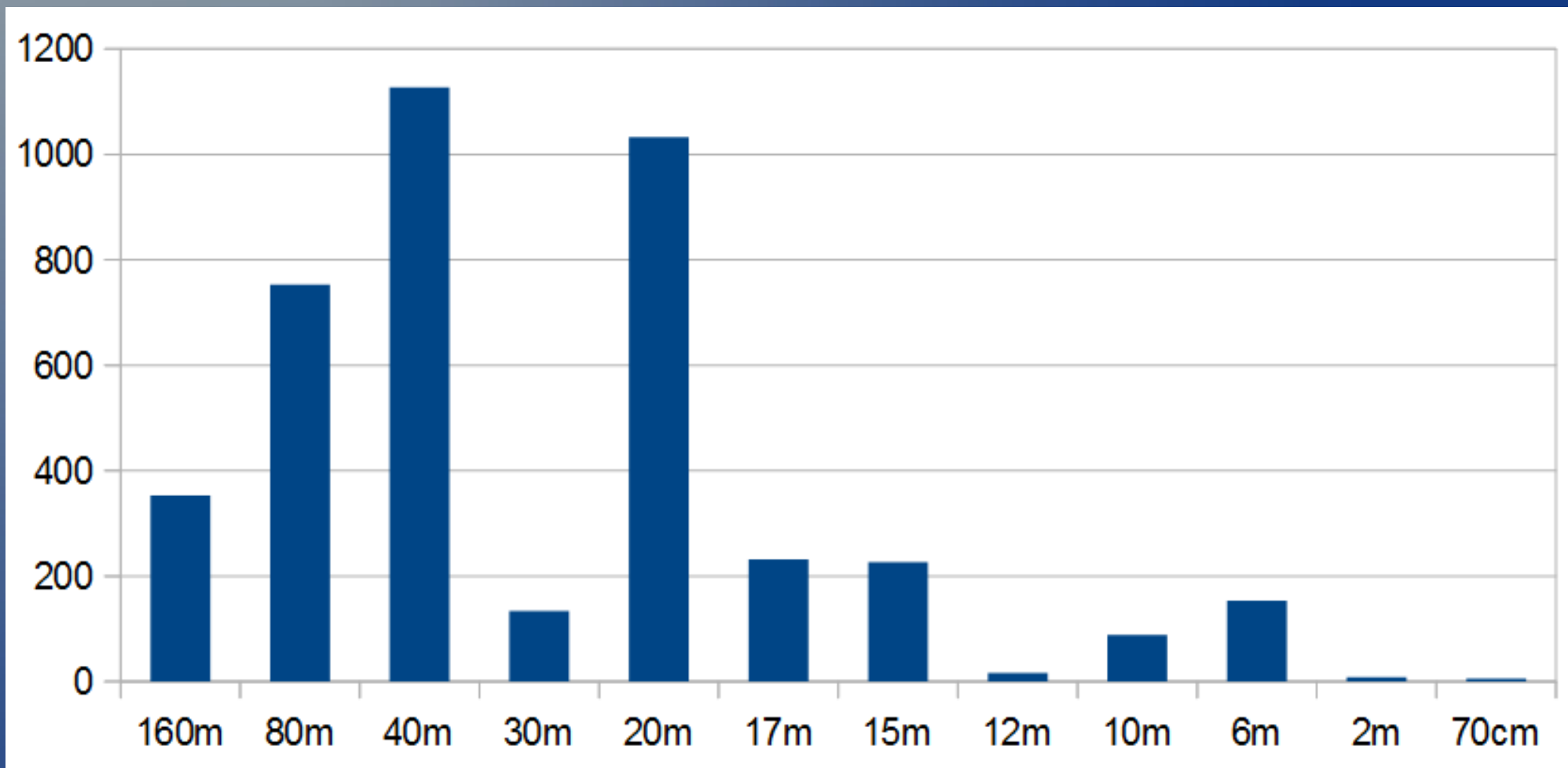
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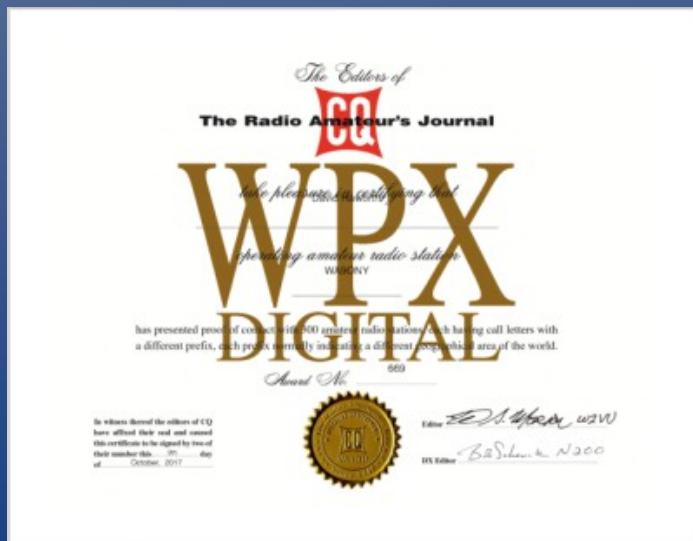
To: RI1ANC This confirms our 2-way FT8 QSO
Date: October 6, 2017 Time: 03:11 UTC
Band: 20M UR Sigs: -12

QSOs / Band



WA9ONY

- Many awards using FT8
- CQ WPX Digital using only FT8
 - 300 Dec. 2017, #669
 - ★ **Honor Roll** 640 March 2018
 - Rank 49th
- www.qrz.com/db/WA9ONY





WAS LoTW Status

WAS Award	New LoTW QSLs	LoTW QSLs in Process	WAS Credits Awarded	Total
Digital *	0	0	50	50
FT8 *	0	0	50	50
Digital 160M	45	0	0	45
80M Digital	48	0	0	48
40M Digital	48	0	0	48
30M Digital	37	0	0	37
20M Digital	50	0	0	50
17M Digital	43	0	0	43
15M Digital	31	0	0	31
12M Digital	5	0	0	5
10M Digital	7	0	0	7
Phone 6M	1	0	0	1
Digital 6M	8	0	0	8
Digital 2M	2	0	0	2

WA9ONY

www.qrz.com/db/WA9ONY

- Dipoles
- 6m up 22 ft
- 10m up 20 ft
- 15m up 22 ft
- 20m up 15 ft
- 40m up 22 ft
- 80m up 22 ft
- 180m up 22 ft



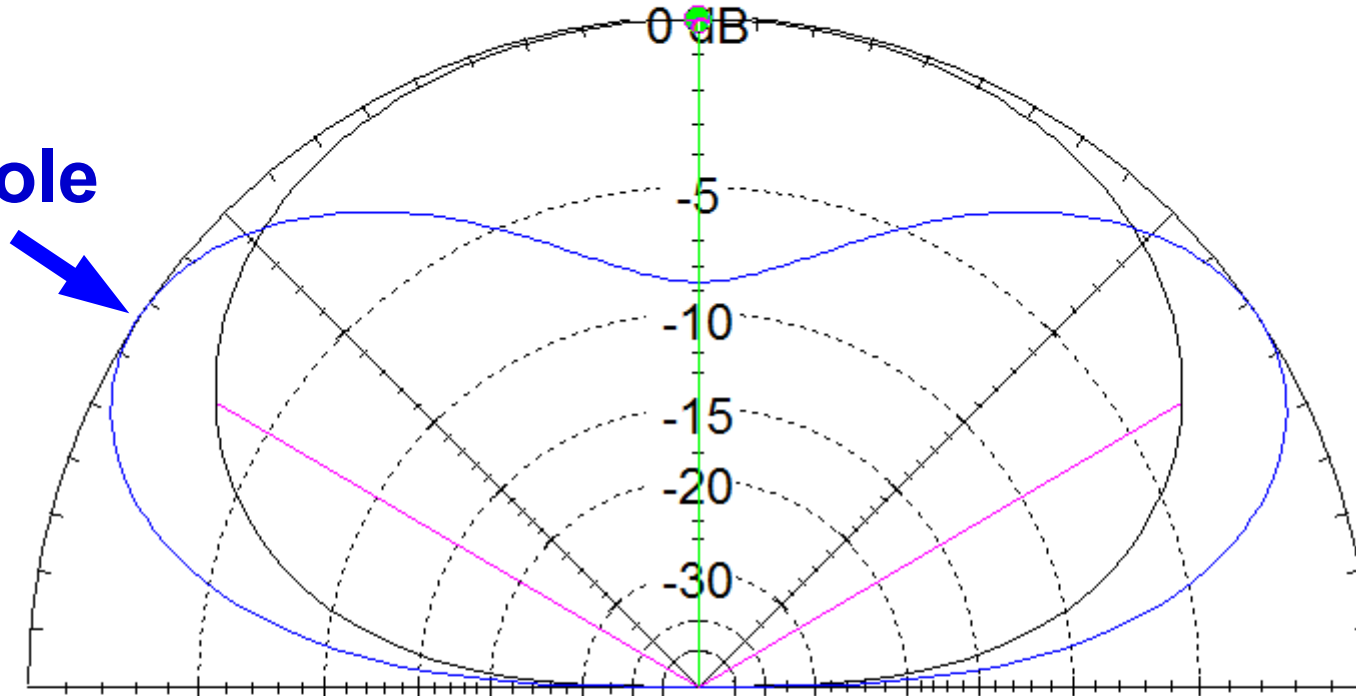
Total Field

EZNEC Demo

* Primary
Dipole20m30up

20m Dipole
up 15'

20m Dipole
up 30'



20m dipole up 15' is too low.
Maximum signal is straight up

14 MHz


Elevation Plot
Azimuth Angle 0.0 deg.
Outer Ring 6.82 dBi

Cursor Elev 90.0 deg.
Gain 6.73 dBi
0.0 dBmax

Slice Max Gain 6.73 dBi @ Elev Angle = 90.0 deg.
Beamwidth 119.2 deg.; -3dB @ 30.4, 149.6 deg.
Sidelobe Gain < -100 dBi
Front/Sidelobe > 100 dB

WA9ONY 616 FT8 Grid Squares

<http://tools.adventureradio.de/analyzer/>

VU2WJ
 SHALP.B
 PANANGAVIL HOUSE, KARIMKUTTY
 KOODARANJIKOZHICODE, 673604
 INDIA
 Loc:MK81ai ITU:41 CQ:22
 10-10:0
 FT-990, 100W,
 19 EL, 4 BAND YAGI

To: WA9ONY This confirms our 2-way FT8 QSO
 Date: October 29, 2017 Time: 01:48 UTC
 Band: 20M UR Sigs: -09
 Thanks for the nice QSO. See you again on air. Pl. confirm qrz log



ZS6WN
 Karel G J Bezuidenhout
 161 Dalmade AH
 Polokwane, 0700
 South Africa
 Loc:KG46sc ITU:57 CQ:38
 Ex ZR6P, ZS6BP, ZS6BPJ/ZS3, ZS6CN
 XYL:ZS6ZL:5ons ZR6K ZR6G: ZUGWB
 Member of SARLEPC,DMC,FH,SKCC,30MDG
 Contest call ZR9C. Licenced since 1976

To: WA9ONY This confirms our 2-way FT8 QSO
 Date: October 25, 2017 Time: 15:01 UTC
 Band: 40M UR Sigs: -16

WAZ 29 ITU 70 IOTA AN-016 AA: UA-10
 OTH: Vostok Base - East Antarctic Plateau - Antarctica
 7828' S 106°48' E W.WL: OStNm WWP: RFF-016 WAP: RLS-13

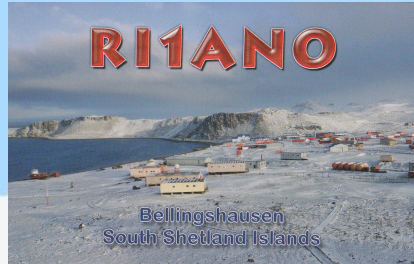
RI1ANC
 Operator: Alexey "Alex" Turkeev - RD1AV

To radio WA9ONY Via: 
 Date: UTC Band Mode RST
 04-Oct-2017 03:30 20m FT8 - 68

Vostok Base is a Russian Antarctic research station. It is at the southern Pole of Cold, with the lowest reliably measured temperature on Earth of -89.2 °C (-128.6 °F). The station is at 3,488 meters above sea level and is the most isolated established research station on the Antarctic continent.

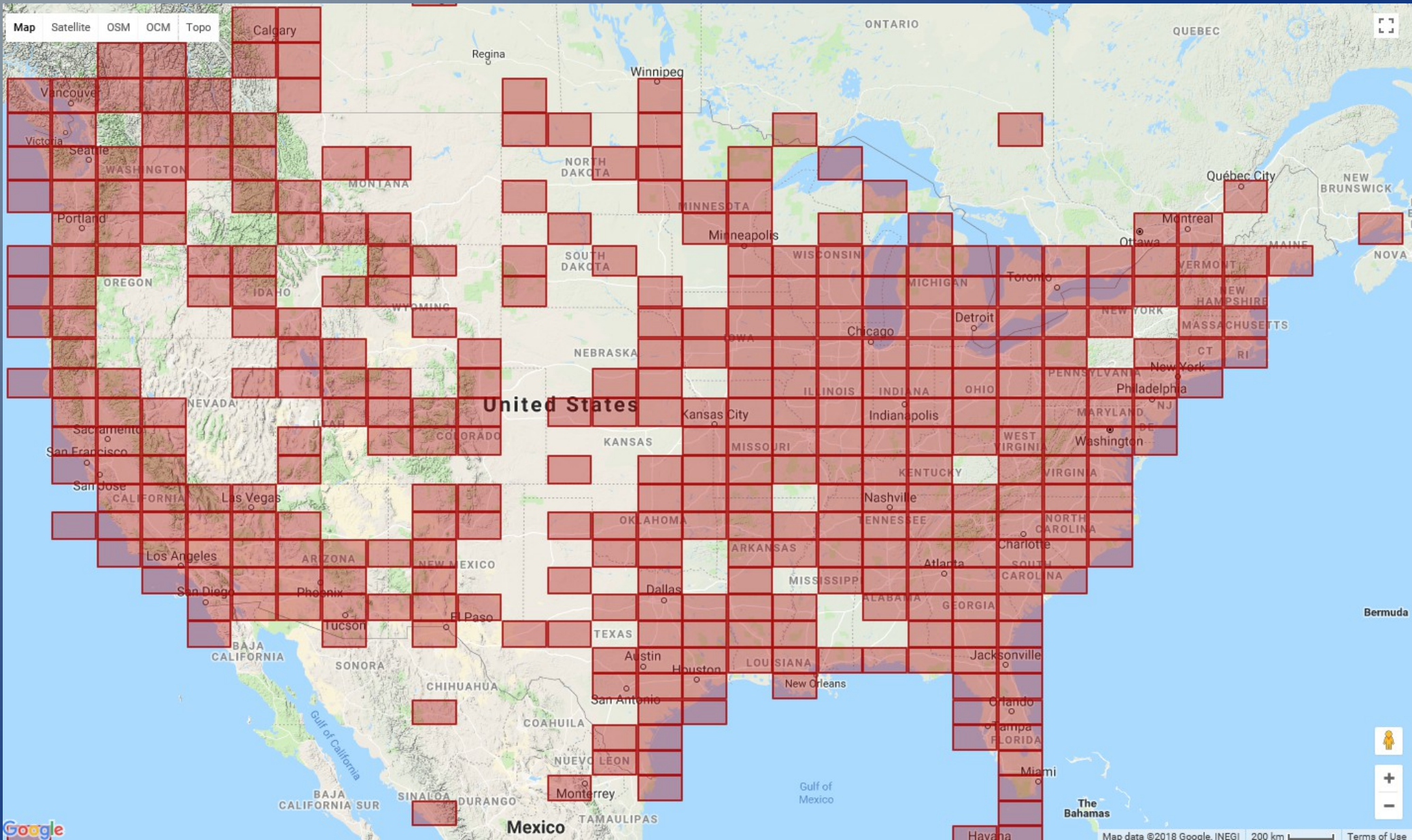
OSL via RYKON - Alexey Kur'manov P.O. Box 599
 Antargazhsk 10000 RUS204

731
 PSSE OSL TNX



WA9ONY FT8 Grid Squares

<http://tools.adventureradio.de/analyzer/>



Laptop HDMI to 32" TV Display

JTAlertX 2.10.4 WA9ONY [~20m,ACL#1] (Up) Alerts | Settings | View | Sound OFF | ? 160 80 60 40 30 20 17 15 12 10 6

N6GAT - CA	FO5QS - B4	JS3LSQ	VK2BY - B4	VK2BC - B4	DU1/JH1FNS	WH6BS - B4	VK1MA - B4	AH6GT - HI
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JTAlertX

WSJT-X v1.8.0 by K1JT

WSJT-X Main Decode

Band Activity				Rx Frequency					
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
061930	-9	-0.1	1956	~ CQ VK1MA QF44 Australia	061230	-17	0.1	200	~ WA9ONY VK2AKH QF56
062000	-10	0.1	1700	~ WA9ONY YF9CDL -22	061245	Tx		200	~ VK2AKH WA9ONY -17
062000	-9	0.1	505	~ CQ N6GAT CM97 ~U.S.A.	061300	-20	0.1	200	~ WA9ONY VK2AKH R-17
062000	-13	1.7	567	~ CQ FO5QS BH43 Marquessas Is.	061315	Tx		200	~ VK2AKH WA9ONY RRR
062000	-5	-0.1	1082	~ K7HRT VK2BY 73	061330	-24	0.1	200	~ WA9ONY VK2AKH 73
062000	-6	0.2	1312	~ JA8DIV VK2BC -18	061345	Tx		200	~ VK2AKH WA9ONY 73
062000	-3	0.2	1758	~ WH6BS VE7BEF 73	061415	Tx		200	~ CQ WA9ONY CN85
062000	-1	0.1	1799	~ CQ AA6MU CM87 U.S.A.	061445	Tx		200	~ CQ WA9ONY CN85
062000	-7	-0.1	1956	~ WL7CG QSY????	061430	-13	0.2	2020	~ CQ DX YF9CDL OI71
062030	-11	0.2	1699	~ WA9ONY YF9CDL RR73	061515	Tx		200	~ YF9CDL WA9ONY CN85
062030	-8	0.2	773	~ JH3QMF JS3LSQ +06	061545	Tx		200	~ YF9CDL WA9ONY CN85
062030	-7	-0.1	1082	~ CQ VK2BY QF56 Australia	061615	Tx		200	~ YF9CDL WA9ONY CN85
062030	-4	-0.2	1153	~ KU7T JA4FJL PM74	061930	-10	0.2	2021	~ CQ DX YF9CDL OI71
062030	-5	0.2	1313	~ JA8DIV VK2BC RRR	061630	-11	0.2	2020	~ S79LD YF9CDL RR73
062030	-13	0.6	1517	~ CQ DU1/JH1FNS PK04 ~Philippines	061645	Tx		200	~ YF9CDL WA9ONY CN85
062030	-16	0.1	1779	~ CQ AA6MU CM87 U.S.A.	061700	-9	0.1	2020	~ CQ DX YF9CDL OI71
062030	-4	-0.1	1956	~ CQ VK1MA QF44 Australia	061715	Tx		200	~ YF9CDL WA9ONY CN85
062030	3	0.2	2230	~ JE1BIG AH6GT -19	061730	-11	0.1	2021	~ CQ DX YF9CDL OI71
062030	-16	1.6	738	~ SA4AQW FO5QS -10	061745	Tx		200	~ YF9CDL WA9ONY CN85
062100	-15	0.1	505	~ JA3GAK N6GAT CM97	061800	-10	0.1	2021	~ CQ DX YF9CDL OI71
062100	-7	1.5	738	~ SA4AQW FO5QS R-10	061815	Tx		1700	~ YF9CDL WA9ONY CN85
062100	-6	0.1	773	~ JH3QMF JS3LSQ RR73	061830	-15	0.1	2021	~ CQ DX YF9CDL OI71
062100	-7	-0.1	1082	~ CQ VK2BY QF56 Australia	061845	Tx		1700	~ YF9CDL WA9ONY CN85
062100	-8	0.2	1313	~ JA8DIV VK2BC 73	061900	-13	0.2	2021	~ CQ DX YF9CDL OI71
062100	-14	0.5	1517	~ CQ DU1/JH1FNS PK04 ~Philippines	061915	Tx		1700	~ YF9CDL WA9ONY CN85
062100	-13	0.2	1640	~ 4F3OM WH6BS BL01	061930	-17	0.2	1700	~ WA9ONY YF9CDL -22
062100	-9	0.2	1962	~ CQ VK1MA QF44 Australia	061945	Tx		898	~ YF9CDL WA9ONY R-17
062100	4	0.2	2230	~ JE1BIG AH6GT RRR	062000	-10	0.1	1700	~ WA9ONY YF9CDL -22
					062015	Tx		1700	~ YF9CDL WA9ONY R-10
					062030	-11	0.2	1699	~ WA9ONY YF9CDL RR73
					062045	Tx		1700	~ YF9CDL WA9ONY 73

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

20m **14.073 996** Tx even/1st

DX Call: YF9CDL DX Grid: OI71 Tx 1700 Hz Tx - Rx Rx 1699 Hz Rx - Tx

Az: 289 8192 mi Hold Tx Freq

2018 May 16 06:21:16

Report -11 Auto Seq Call 1st NA VHF Contest

Generate Std Msgs Next Now Pwr

YF9CDL WA9ONY CN85 Tx 1

YF9CDL WA9ONY -11 Tx 2

YF9CDL WA9ONY R-11 Tx 3

YF9CDL WA9ONY RRR Tx 4

YF9CDL WA9ONY 73 Tx 5

CQ WA9ONY CN85 Tx 6

Receiving FT8 Last Tx: YF9CDL WA9ONY 73 1/15 WD:30m

N3FJP's Amateur Contact Log

File Edit Settings Clear CallBook List Search Awards eLogs Recall Net View Help

Find

Recent Contacts

Rec#	Call	Date / Time	Snt	Rec	Country	Grid	Bnd	ST	R Conf
901	YF9CDL	2017/09/18 14:41	-14	-15	Indonesia	OI71	40		LE

Call	Date	Band	Mode	Power	Time
YF9CDL	2018/05/16	20	FT8	80	06:15

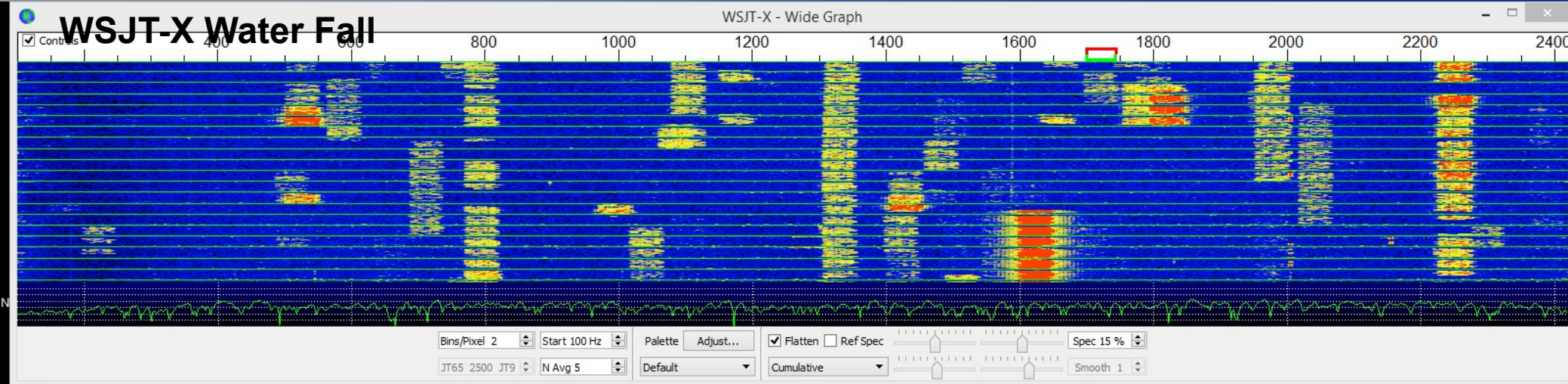
Name	State	Frequency	Conf By S	Conf By R
Kadek Dwija	ID	14.074196		

Bearing: 288
Miles: 8,182
Cont: OC

Comments

FT-857DKadek Dwija Kusuma - JL. Pantai Purnama NO.65 Sukawati - Gianyar

Laptop Display



WSJT-X
JTAlertX



ft8-2017-3...



WSJT-X Log QSO

Click OK to confirm the following QSO:

Call	Start	End
YF9CDL	16/05/2018 06:19:15	16/05/2018 06:20:45

Mode	Band	Rpt Sent	Rpt Rcvd	Grid	Name
FT8	20m	-10	-22	OI71	

Tx power: 80 Retain

Comments: FT-857D Retain

OK Cancel

rsNTP (Precisely Simple NTP Client)

Server: 0.europe.pool.ntp.org 2018-05-16 06:21:16.0

synchronize periodically verbose output Add [s] 0.0

Synchronising..

```
2018-05-16 05:58:59.72 : Looking up 0.europe.pool.ntp.org
2018-05-16 05:58:59.72 : Querying 193.47.166.29
2018-05-16 05:58:59.95 : Received response :
  Originate time from NTP : 2018-05-16 05:58:59.722
  Receive time from NTP : 2018-05-16 05:58:59.852
  Transmit time from NTP : 2018-05-16 05:58:59.852
  Round trip : 0.233411 seconds
  Clock offset : 0.013494 seconds
2018-05-16 05:58:59.97 : Clock adjusted by 0.013494 sec
2018-05-16 06:19:04.31 : Clock adjusted by 0.003132 sec
```

Synchronize Exit Options Help

WA9ONY FT8 Software Setup

WSJT-X

rsNTP

JTAlertX

QRZ Info & Image

**Amateur
Contact
Log**

eQSL

LoTW

ADIF File

Club Log

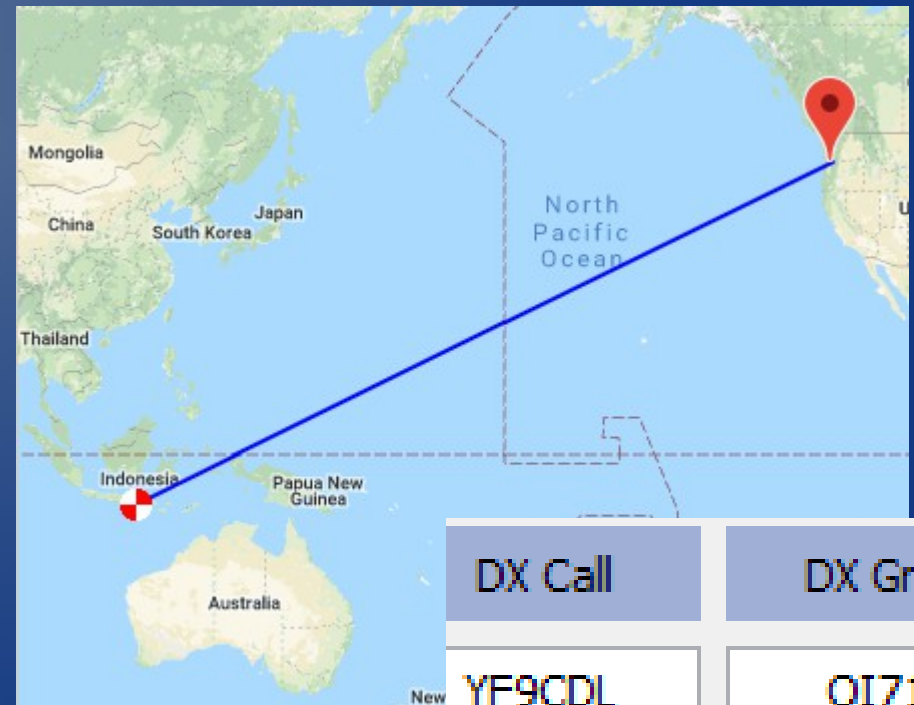
QRZ Log

PSK Reporter

IrfanView

Typical Evening on FT8 20m

- First contact CN85 KI7HMV
- ZL1BQD signal report R -11, S -10
- FK/JS3LSQ R-02 S-08
- Several CA stations
- VK2HCC R-12 S-09
- FK8CE R-03 S-08
- VK2AKH R-17 S-17
- YF9CDL R-22 S-10
- Last RA0LX R-18 S-21



DX Call	DX Grid
YF9CDL	OI71
Az: 289	8192 mi

FK8CE

Dominique HOARAU
 PO BOX: 138
 98870 BOURAIL
 NEW CALEDONIA
 Loc:RG28rj ITU:56 CQ:32
 IOTA:OC-032
 YAESH FT-350,100W. YAESU FT-450,100W.
 SHARCRAFT R-8 at 7 meters high.
 BEGALI "STEALTH" KEYSER.
 ACOM 1010.

RA0LX

Sergej V. Goncharenko
 Urickogo 7-92
 Lesozavodsk, 692036
 RUSSIA
 Loc:PN65H ITU:34 CQ:19
 RDA:PK-10

FT8 20m Log

To: WA9ONY This confirms our 2-way FT8 QSO
 Date: May 16, 2018 Time: 06:30 UTC
 Band: 20M UR Sigs: -18
 TNX For QSO TU 73!

an Electronic QSL from eQSL.cc

Rec#	Call	Date / Time	Snt	Rec	Country	Grid	Bnd	ST	R Conf
3917	RA0LX	2018/05/16 06:29	-21	-18	Asiatic Russia	PN65	20	PK	EL
3916	YF9CDL	2018/05/16 06:19	-10	-22	Indonesia	OI71	20		EL
3915	VK2AKH	2018/05/16 06:12	-17	-17	Australia	QF56	20		
3914	ND6H	2018/05/16 05:50	-08	-24	USA	CM97	20	CA	
3913	FK8CE	2018/05/16 05:43	-08	-03	New Caledonia	RG28	20		E
3912	VK2HCC	2018/05/16 05:41	-09	-12	Australia	QG61	20	NSW	EL
3911	N6GD	2018/05/16 05:25	-05	+06	USA	CM87	20	CA	
3910	W6JPG	2018/05/16 05:23	-05	-02	USA	DM04	20		
3909	KF6JXM	2018/05/16 05:20	-12	-03	USA	DM13	20	CA	EL
3908	W6JPG	2018/05/16 05:18	-01	+03	USA	DM04	20	CA	L
3907	K6NR	2018/05/16 05:15	-06	+01	USA	DM14	20	CA	L
3906	FK/JS3LSQ	2018/05/16 05:04	-08	-02	New Caledonia		20		
3905	ZL1BQD	2018/05/16 05:01	-10	-11	New Zealand	RF73	20		EL
3904	KI7H MV	2018/05/16 04:42	-04	-08	USA	CN85	20	OR	L

VK2HCC

VK2HCC

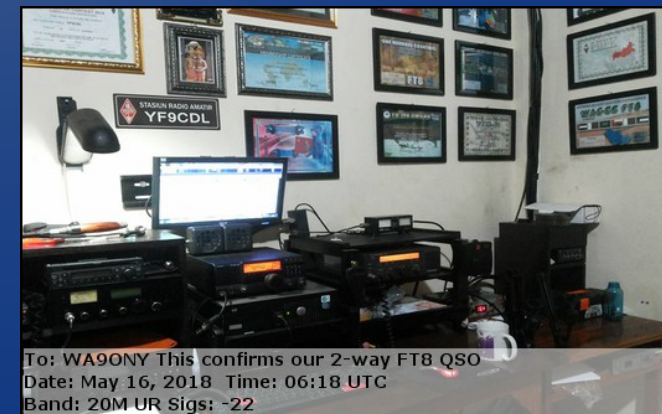
Tweed Heads West, NSW,
 Australia
 Loc:QG61ST ITU:59 CQ:30
 10-10:0

To: WA9ONY This confirms our 2-way FT8 QSO
 Date: May 16, 2018 Time: 05:41 UTC
 Band: 20m UR Sigs: -12
 Tnx for QSO, 73 Craig

ZL1BQD

Roly Runciman
 18 Lansell Drive
 Auckland, 2016
 NEW ZEALAND
 Loc:RF73lb ITU:60 CQ:32
 IOTA:OC-036 10-10:15039

To: WA9ONY This confirms our 2-way FT8 QSO
 Date: May 16, 2018 Time: 05:01 UTC
 Band: 20M UR Sigs: -11



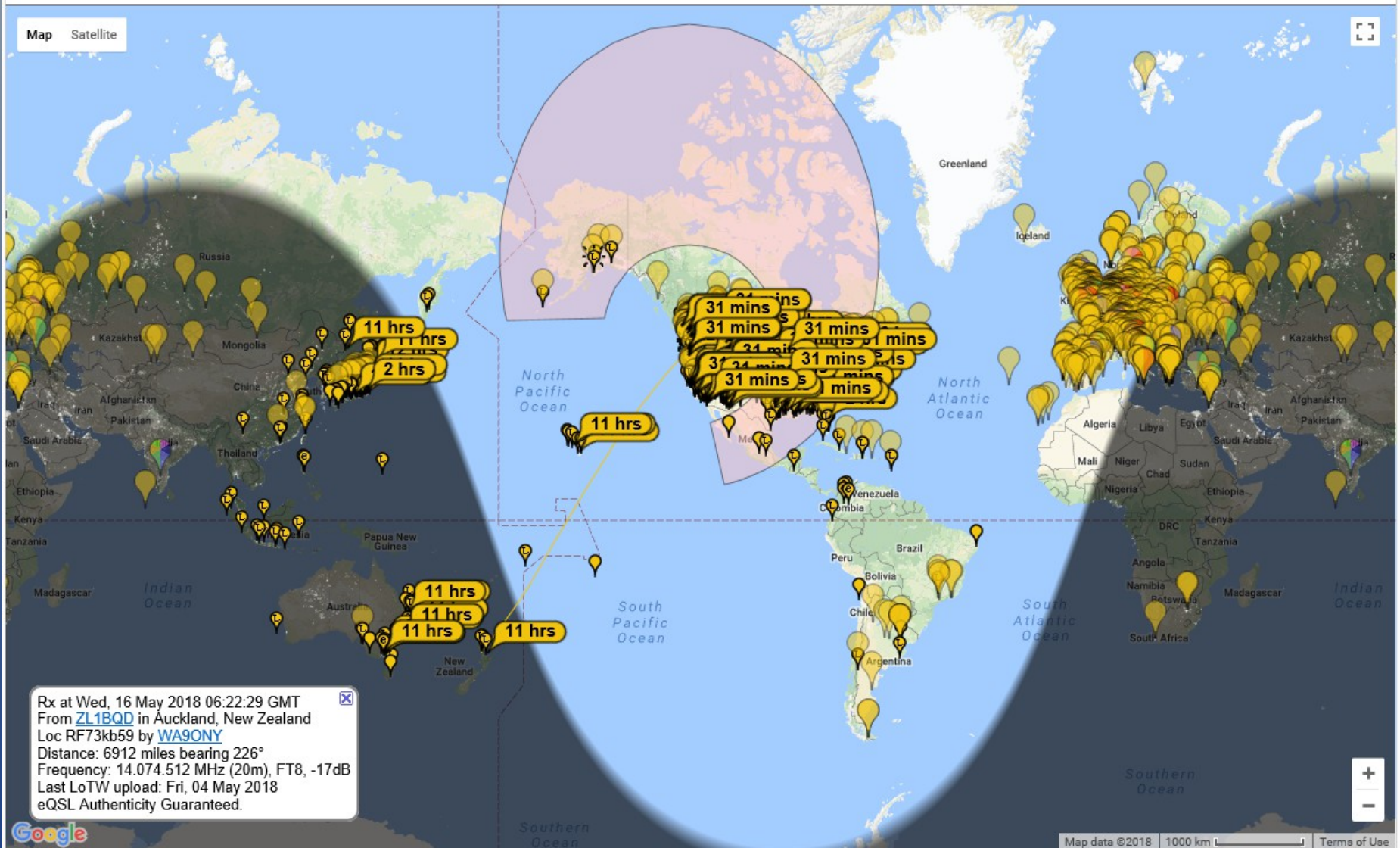
To: WA9ONY This confirms our 2-way FT8 QSO
 Date: May 16, 2018 Time: 06:18 UTC
 Band: 20M UR Sigs: -22

FT8 QSOs

054045	-10	0.1	1329	~	CQ	VK2HCC	QG61
054130	Tx		476	~	VK2HCC	WA9ONY	CN85
054145	-9	1.2	1328	~	WA9ONY	VK2HCC	-12
054200	Tx		476	~	VK2HCC	WA9ONY	R-09
054215	-11	0.1	1327	~	WA9ONY	VK2HCC	RRR
054230	Tx		476	~	VK2HCC	WA9ONY	73
054245	-4	0.1	1327	~	WA9ONY	VK2HCC	73
054245	-9	0.3	725	~	CQ	FK8CE	RG28
054315	-7	0.3	725	~	CQ	FK8CE	RG28
054330	Tx		476	~	FK8CE	WA9ONY	CN85
054345	-8	0.3	726	~	WA9ONY	FK8CE	-03
054400	Tx		476	~	FK8CE	WA9ONY	R-08
054415	-8	0.3	726	~	WA9ONY	FK8CE	RR73
054430	Tx		476	~	FK8CE	WA9ONY	73
054445	-10	0.3	726	~	CQ	FK8CE	RG28

Who Heard WA9ONY FT8 20m

On show sent/rcvd by using over the last [Display options](#) [Permalink](#)
Monitoring WA9ONY (last heard 31 mins ago). Automatic refresh in 3 minutes. Small markers are the 829 transmitters ([show logbook](#)) heard ([distance chart](#)) at WA9ONY (6128 reports, 52 countries last 24 hours; 27322 reports, [63 countries](#) last week).
There are [1024 active FT8 monitors](#) on 20m. [Show all FT8 on all bands](#). [Show all on all bands](#). [Legend](#)



DXCC Most Wanted List (Club Log)

USA is Last

Rank	Prefix	Entity Name
1.	P5	DPRK (NORTH KOREA)
2.	3Y/B	BOUVET ISLAND
3.	FT5/W	CROZET ISLAND
4.	BS7H	SCARBOROUGH REEF
5.	KH1	BAKER HOWLAND ISLANDS

337.	UA	EUROPEAN RUSSIA
338.	DL	FEDERAL REPUBLIC OF GERMANY
339.	I	ITALY
340.	K	UNITED STATES OF AMERICA



Exciting for DX Station VK7BO

Reply to My CQ on 80m

DX Call	DX Grid
VK7BO	QE38
Az: 239	8186 mi

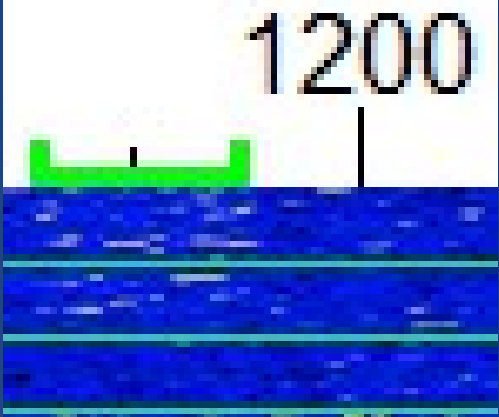


080015	Tx	806	~	CQ	WA9ONY	CN85
080045	Tx	806	~	CQ	WA9ONY	CN85
080115	Tx	806	~	CQ	WA9ONY	CN85
080130	-17	0.1	1724	~	WA9ONY	VK7BO -11
080145	Tx	806	~	VK7BO	WA9ONY	R-17
080200	-16	0.1	1724	~	WA9ONY	VK7BO RR73
080215	Tx	806	~	VK7BO	WA9ONY	73

Exciting for DX Station ZL2RX Reply to My CQ on 160m

Station
 Call Sign WA9ONY
 DXCC UNITED STATES OF AMERICA (291)
 CQ Zone 03
 ITU Zone 06
 Grid CN85TQ
 State Washington (WA)
 County Clark
 Worked Station
 Worked ZL2RX
 DXCC NEW ZEALAND (170)
 CQ Zone 32
 ITU Zone 60
 IOTA OC-134
 Grid RE68PR
 Date/Time 2018-01-08 08:58:00
 Mode FT8 (DATA)
 Band 160M
 Frequency 1.84080
 QSL [2018-01-08 09:49:02](#)
 Record ID 895012677 Received: 2018-01-08 09:20:03

DX Call	DX Grid
ZL2RX	RE68
Az: 224	7200 mi



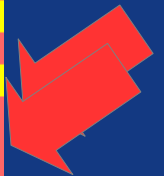
----- 160m					
085330	-4	0.7	805 ~	WA9ONY W7USA DM33	
085330	14	-0.1	1292 ~	CQ N7XS CN88	U.S.A.
----- 160m					
085400	-6	1.2	805 ~	WA9ONY W7USA R-09	
085400	14	-0.1	1292 ~	CQ N7XS CN88	U.S.A.
----- 160m					
085430	-9	0.7	805 ~	WA9ONY W7USA 73	
085430	14	-0.1	1292 ~	CQ N7XS CN88	U.S.A.
----- 160m					
085500	15	-0.1	1292 ~	CQ N7XS CN88	U.S.A.
----- 160m					
085530	14	-0.1	1292 ~	CQ N7XS CN88	U.S.A.
----- 160m					
085800	-19	0.3	1127 ~	WA9ONY ZL2RX RE68	
----- 160m					
085900	-17	0.3	1127 ~	WA9ONY ZL2RX R-16	
----- 160m					
090430	-19	0.3	1129 ~	WA9ONY ZL2RX 73	

085745	Tx	805 ~	CQ WA9ONY CN85
085800	-19	0.3	1127 ~ WA9ONY ZL2RX RE68
085815	Tx	805 ~	ZL2RX WA9ONY -19
085845	Tx	805 ~	ZL2RX WA9ONY -19
085900	-17	0.3	1127 ~ WA9ONY ZL2RX R-16
085915	Tx	805 ~	ZL2RX WA9ONY RRR
085945	Tx	805 ~	ZL2RX WA9ONY RRR
090015	Tx	805 ~	ZL2RX WA9ONY RRR
090045	Tx	805 ~	ZL2RX WA9ONY RRR
090115	Tx	805 ~	ZL2RX WA9ONY RRR
090145	Tx	805 ~	ZL2RX WA9ONY RRR
090215	Tx	805 ~	ZL2RX WA9ONY RRR
090245	Tx	805 ~	ZL2RX WA9ONY RRR
090315	Tx	805 ~	ZL2RX WA9ONY RRR
090345	Tx	805 ~	ZL2RX WA9ONY RRR
090415	Tx	805 ~	ZL2RX WA9ONY RRR
090430	-19	0.3	1129 ~ WA9ONY ZL2RX 73
090445	Tx	805 ~	ZL2RX WA9ONY 73

Fun Being Chased on 80m

UTC	dB	DT	Freq	Message
105315	-16	0.1	2170	~ CQ KF9KV EN52
105330	Tx		600	~ KF9KV WA9ONY CN85
105400	Tx		600	~ KF9KV WA9ONY CN85
105430	Tx		600	~ KF9KV WA9ONY CN85
105500	Tx		600	~ KF9KV WA9ONY CN85
105515	-18	0.1	1170	~ WA9ONY KF9KV -06
105530	Tx		600	~ KF9KV WA9ONY R-18
105600	Tx		600	~ KF9KV WA9ONY R-18
105615	-18	0.1	1170	~ WA9ONY KF9KV RRR
105615	-5	0.1	1942	~ WA9ONY VK5PO PF95
105630	Tx		600	~ KF9KV WA9ONY 73
105645	3	1.6	1415	~ WA9ONY JA5BZL -07
105645	-4	0.1	1942	~ WA9ONY VK5PO PF95
105715	-6	0.1	1942	~ WA9ONY VK5PO PF95
105715	3	1.6	1415	~ WA9ONY JA5BZL -07
105730	Tx		600	~ VK5PO WA9ONY -06
105745	-8	0.1	1942	~ WA9ONY VK5PO R-09
105800	Tx		600	~ VK5PO WA9ONY RRR
105815	-6	0.1	1942	~ WA9ONY VK5PO 73
105830	Tx		600	~ VK5PO WA9ONY 73
105645	3	1.6	1415	~ WA9ONY JA5BZL -07
105845	3	1.6	1415	~ WA9ONY JA5BZL -07
105845	-11	0.1	600	~ WA9ONY JA9CHI PM86
105900	Tx		600	~ JA5BZL WA9ONY R+03
105915	2	1.5	1415	~ WA9ONY JA5BZL RR73
105915	-8	0.1	600	~ WA9ONY JA9CHI PM86
105930	Tx		600	~ JA5BZL WA9ONY 73
105945	1	1.6	1415	~ WA9ONY JA5BZL RR73
105945	1	0.1	600	~ WA9ONY JA9CHI PM86
105945	-9	0.0	1696	~ WA9ONY UA0ZEO QO93
110015	0	1.6	1415	~ WA9ONY JA5BZL 73
110015	2	0.1	600	~ WA9ONY JA9CHI PM86
110015	-8	0.0	1696	~ WA9ONY UA0ZEO QO93
110038	Tx		600	~ UA0ZEO WA9ONY -08
110045	3	0.1	600	~ WA9ONY JA9CHI PM86
110100	Tx		600	~ UA0ZEO WA9ONY -08
110115	-7	0.0	1696	~ WA9ONY UA0ZEO R-13
110130	Tx		600	~ UA0ZEO WA9ONY RRR

UTC	dB	DT	Freq	Message
110130	Tx		600	~ UA0ZEO WA9ONY RRR
110145	-3	0.0	1696	~ WA9ONY UA0ZEO 73
110200	Tx		600	~ UA0ZEO WA9ONY 73
110045	3	0.1	600	~ WA9ONY JA9CHI PM86
110230	Tx		600	~ JA9CHI WA9ONY +03
110245	3	0.1	600	~ WA9ONY JA9CHI PM86
110300	Tx		600	~ JA9CHI WA9ONY +03
110315	3	0.1	600	~ WA9ONY JA9CHI R-09
110330	Tx		600	~ JA9CHI WA9ONY RRR
110345	1	0.1	600	~ WA9ONY JA9CHI 73
110400	Tx		600	~ JA9CHI WA9ONY 73
110415	1	0.2	600	~ WA9ONY JH3QMF PM74
110415	-8	0.1	483	~ WA9ONY JH1APK -11
110415	1	0.2	600	~ WA9ONY JH3QMF PM74
110445	4	0.2	599	~ WA9ONY JH3QMF PM74
110445	-3	0.1	484	~ WA9ONY JH1APK -11
110500	Tx		600	~ JH3QMF WA9ONY +04
110515	1	0.2	599	~ WA9ONY JH3QMF R-16
110530	Tx		600	~ JH3QMF WA9ONY RRR
110545	1	0.2	599	~ WA9ONY JH3QMF 73
110600	Tx		600	~ JH3QMF WA9ONY 73
110445	-3	0.1	484	~ WA9ONY JH1APK -11
110615	-4	0.1	484	~ WA9ONY JH1APK -11
110630	Tx		600	~ JH1APK WA9ONY R-04
110645	-3	0.1	483	~ WA9ONY JH1APK RRR
110700	Tx		600	~ JH1APK WA9ONY 73
110715	-1	0.1	483	~ WA9ONY JH1APK 73



Fun Being Chased on 80m Log

Rec#	Call	Date / Time	Snt	Rec	Country	Grid	Bnd	ST
4047	JA4UMN	2018/05/25 11:59	-03	-14	Japan	PM64	80	
4046	NC7B	2018/05/25 11:53	+07	+11	USA	DM43	80	AZ
4045	W5VOM/5	2018/05/25 11:46	-07	-07	USA		80	
4044	N4PT	2018/05/25 11:42	+11	+10	USA	DM42	80	AZ
4043	JR1XIS	2018/05/25 11:34	+07	-17	Japan	QM05	80	
4042	WB5OZA	2018/05/25 11:31	-13	-14	USA	EM30	80	LA
4041	KE5IRK	2018/05/25 11:24	-02	+00	USA	EM04	80	OK
4040	JH1APK	2018/05/25 11:06	-04	-11	Japan	PM95	80	
4039	JH3QMF	2018/05/25 11:04	+04	-16	Japan	PM74	80	
4038	JA9CHI	2018/05/25 11:02	+03	-09	Japan	PM86	80	
4037	UA0ZEO	2018/05/25 11:00	-08	-13	Asiatic Russia	QO93	80	
4036	JA5BZL	2018/05/25 10:58	+03	-07	Japan	PM63	80	
4035	VK5PO	2018/05/25 10:57	-06	-09	Australia	PF95	80	
4034	KF9KV	2018/05/25 10:55	-18	-06	USA	EN52	80	WI
4033	JH0EQN	2018/05/25 10:51	-05	-05	Japan	PM97	80	

9 minutes of hectic fun



WA9ONY/KH6

Feb. 2018 Kauai



- 2,331 FT8 20m QSOs
- LoTW 1,428 QSLs 61%
- EQSL 1,287 55%
- QRZ.com 653 28%
- ~2/3 QSOs non USA stations
- 21 awards with 8 endorsements
- WAS 20m FT8 took 13 days
- ★ 3rd/9K ARRL IGC Feb. 20m FT8
- www.qrz.com/db/WA9ONY/KH6



Kauai Vacation WA9ONY/KH6

www.qrz.com/db/WA9ONY/KH6



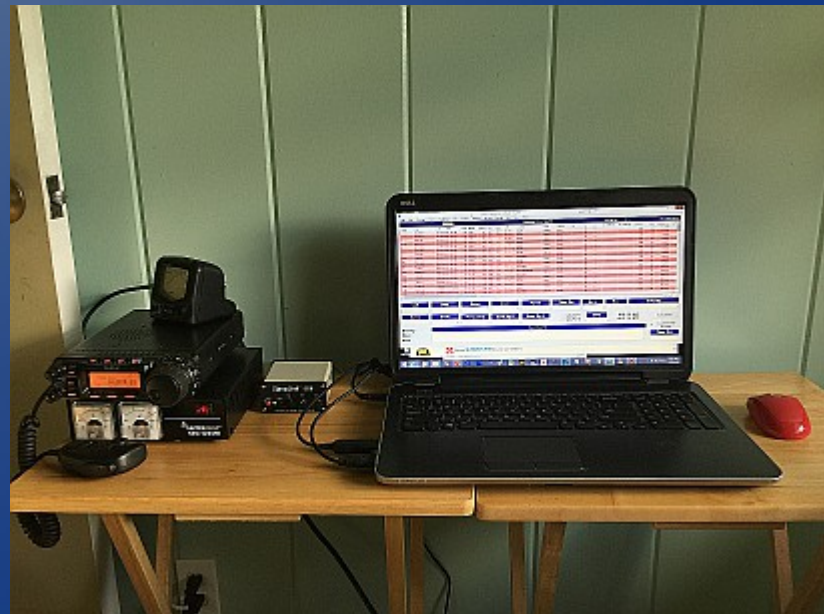
WA9ONY/KH6

David A Haworth
4531 Wailapa Rd
Kilauea, HI 96754
USA

Loc:BL02he ITU:61 CQ:31 Kauai County
IOTA:OC-019
73, David

www.qrz.com/db/WA9ONY/KH6
www.stargazing.net/david

To: SAMPLE This confirms our 2-way FT8 QSO
Date: February 10, 2018 Time: 00:00 UTC
Band: 20m UR Sigs: +00



WA9ONY/KH6 551 Grid Squares

<http://tools.adventureradio.de/analyzer/>

MMO GAX
DAVE

TOTA EU-009

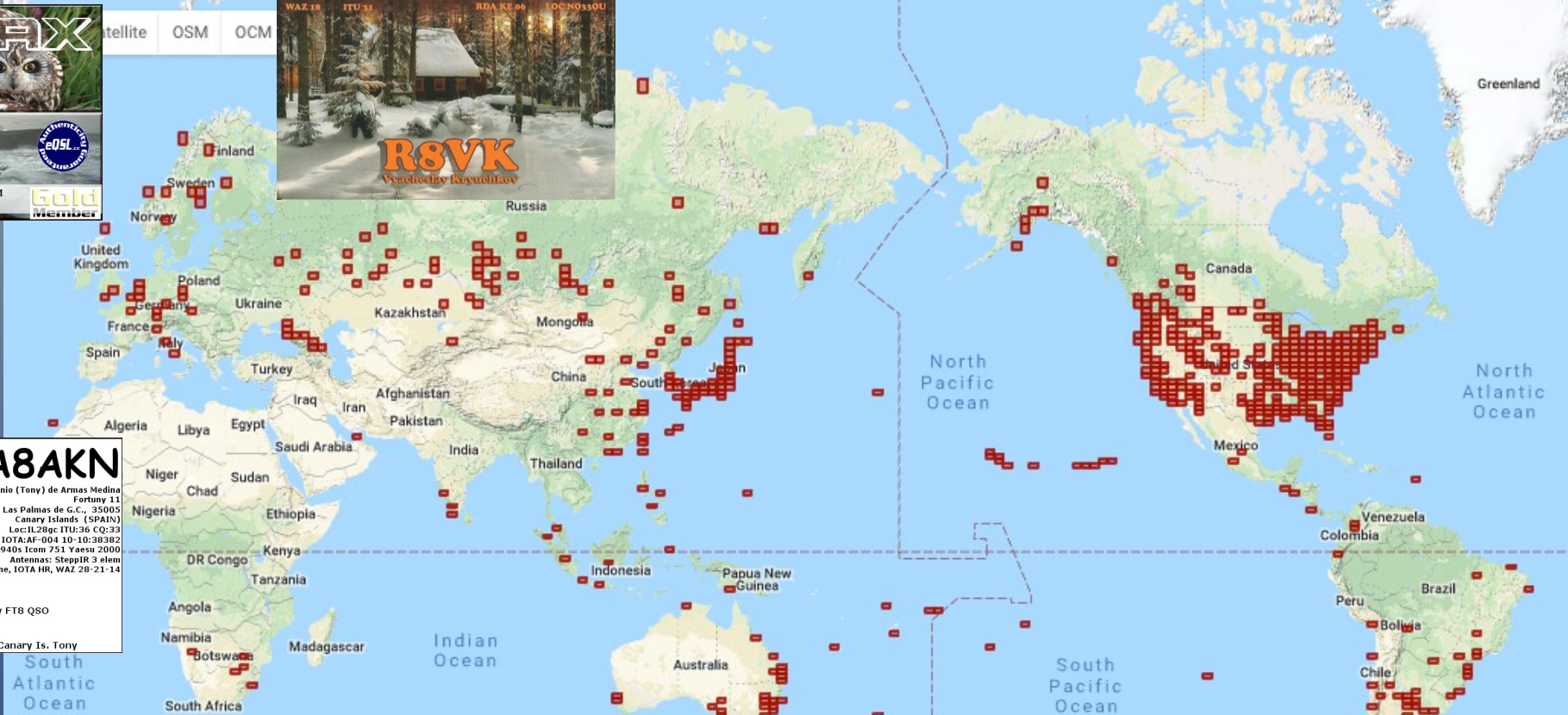
Gold Member

To: WA9ONY/KH6 Confirming 2-way FT8 QSO, Band: 20M
Date: February 21, 2018 Time: 17:40Z, RST: -20

ASIATIC RUSSIA
WAZ:18 ITU:31

QTH:NOVOKUZNETSK
RDA:KE-08 LOC:NO330U

RSVK
Vyacheslav Kevyuchikov



E88AKN

Antonio (Tony) de Armas Medina
Fortuny 11
Las Palmas de G.C., 35005
Canary Islands (SPAIN)
Loc:IL28gc ITU:36 CQ:33
IOTA:AF-004 10-10:38382
Rig: Kenwood TS-940s Icom 751 Yaesu 2000
Antennas: SteppIR 3 elem
DXCC 1 HR Phone, IOTA HR, WAZ 28-21-14

To: WA9ONY/KH6 This confirms our 2-way FT8 QSO
Date: February 12, 2018 Time: 17:35 UTC
Band: 20M UR Sigs: -18
TNX 1st FT8 QSO with Hawaii. Aloha from Canary Is. Tony

DP1POL

Nearmyer Station III
Antarctica

ZS6WR

West Rand Amateu

To: WA9ONY/KH6 This confir
Date: February 11, 2018 Tim
Band: 20M UR Sigs: +11

VK6OZ

Stephen Edward Hill
20 Farrington Road
Leeming, 6149
West Australia

ITU:58 CQ:33 Gnd:OF77ww
IOTA:00001

To: WA9ONY/KH6 Confirming 2-way FT8 QSO, Band: 20M
Date: January 29, 2018 Time: 02:09Z, RST: -15

ZL4CTS

Chris Shaw
10 Kiwi Burn Place, RD 1
Te Anau, 9679
New Zealand
Loc:RE34uu ITU:60 CQ:32
IOTA:OC-134
Rig: FT101E or IC-H700 Antenna: Dipole

To: WA9ONY/KH6 This confirms our 2-way FT8 QSO
Date: February 5, 2018 Time: 03:53 UTC
Band: 20M UR Sigs: -12

LW7EDH

EDUARDO HECTOR RODRIGUEZ
Calle 7-A # 1457 - C.C. 107
Miramar, 7607 ARGENTINA
lv7edh@gmail.com
Loc:GF11br ITU:14 CQ:13
Yaesu FT-897 - Baofeng UV5R
Dipole G5RV - Direccional Moxon U-V
EPC#25575 - DMC#08522 - NDG#2344 -
BDM#5311 - CDG#1566 - ERC#1857

To: WA9ONY/KH6 This confirms our 2-way FT8 QSO
Date: February 1, 2018 Time: 02:44 UTC
Band: 20M UR Sigs: -06
Thanks for this QSO my friend (((73))) Gracias por este QSO, mi



FT8 is a Digital Mode

Released July 2017

- Created by
 - Steve **F**ranke, K9AN
 - Joe **T**aylor, K1JT
 - **8** tones - FSK modulation
- Quick weak signal communication
 - “touch and go” DX contacts
 - Not for “chewing the rag”
- Typical contact
 - Call signs, location, signal report, 73

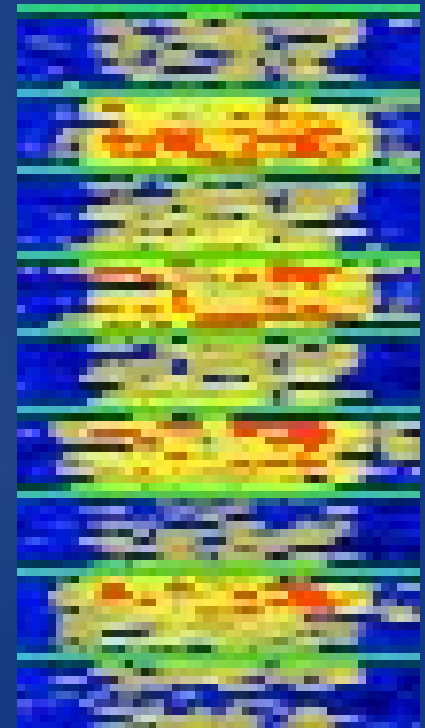
<https://ece.illinois.edu/directory/profile/s-franke>

https://en.wikipedia.org/wiki/Joseph_Hooton_Taylor_Jr.



FT8 Characteristics

- Decoding S/N threshold down to -24 dB
- Complete waterfall decode
 - Two pass decoding
- DSP & forward error correction (FEC)
 - Almost error free
- 50 Hz bandwidth
- Fixed 72 bit payload
- 15 s transmit/receive sequence
 - 12.64 s transmit



FT8 Characteristics

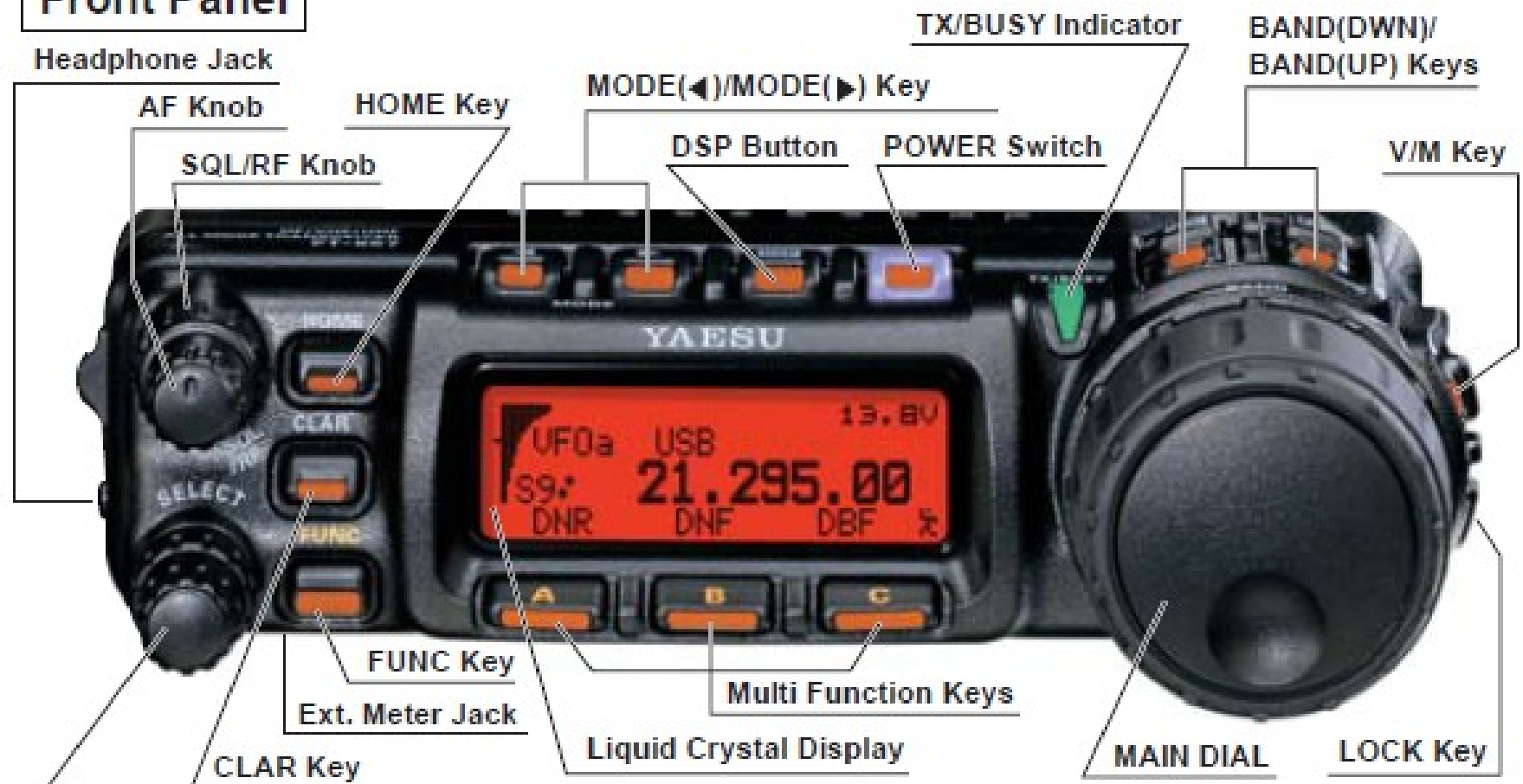
- DX expedition mode
 - Multi contacts at the same time
 - ~400 QSOs/hour, 6.7 QSOs/min.
 - Test #3 results
- NA VHF contest mode
 - Only grid square
 - No signal reports

WA9ONY FT8 Equipment

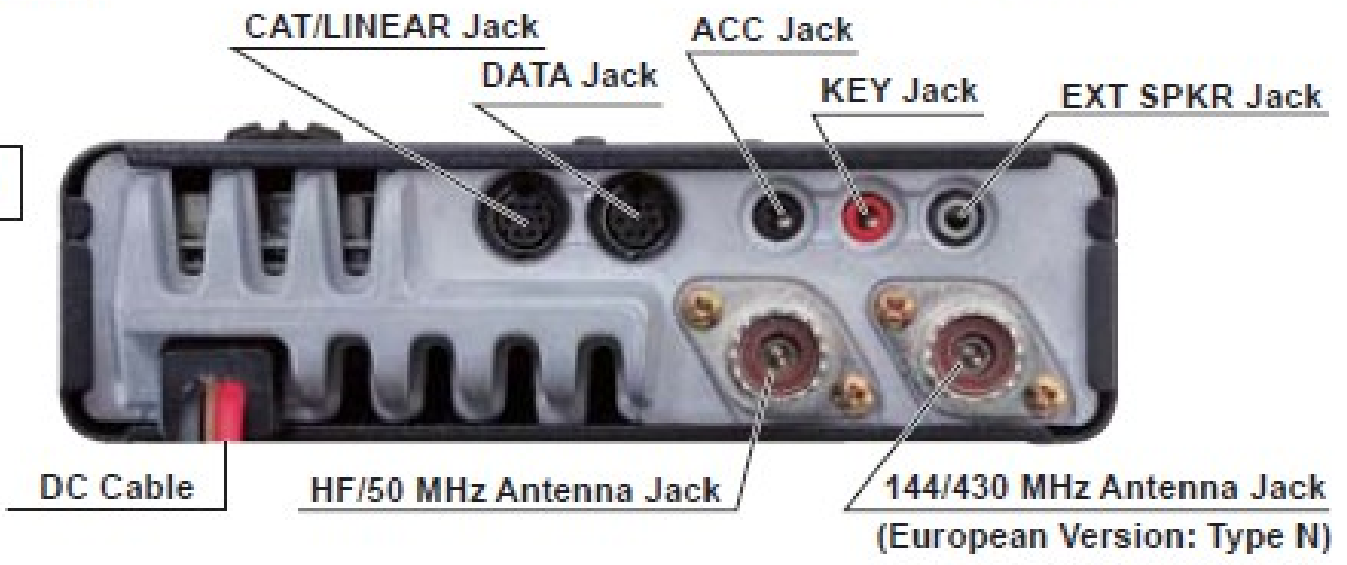
- WSJT-X V1.8 software
- Dell i7 64-bit 8.1 Windows laptop
- Transceiver with data & CAT ports
 - Yaesu FT-857D, AGC set fast
- SignalLink USB with TX & RX controls
- PC to transceiver CAT interface
- Diamond SWR power meter
- Dipoles antennas



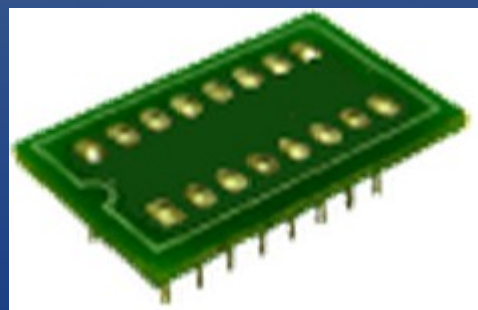
Front Panel



Rear Panel



Signalink USB



www.amazon.com/gp/product/B01LWKQB7D/ref=oh_aui_detailpage_o05_s00?ie=UTF8&psc=1



MAXTOP

MAXTOP APCUSB-YM62 FTDI
USB Programming Cable for
Yaesu FT-100 FT-817 FT-857
FT-897 FT-100D FT-817ND FT-
857D as CT-62

★★★★★ ▾ [5 customer reviews](#)

Price: **\$23.50** & **FREE Shipping**

[Get \\$40 off instantly: Pay \\$0.00 upon approval for the Amazon.com Store Card.](#)

In Stock.

Get it as soon as May 18 - 25 when you choose **Economy Shipping** at checkout.

Ships from and sold by [BOMMEOW Radio](#).

- Quality that sells itself: Built-in FTDI Chipset that offers unparalleled flexibility & assurance
- On-Board Activity LED light – it just helped making your job a lot more efficient!
- Ease of use with Plug-n-Play [internet connection must be present]
- OEM of Yaesu CT-62
- Specification: Yaesu FT-100 and similar sockets

Required FT8 Software

WSJT-X

The screenshot displays the WSJT-X v1.8.0 software interface. The top window, titled "WSJT-X v1.8.0 by K1JT", shows a "Band Activity" table with columns for UTC, dB, DT, Freq, and Message. The table lists various stations and their messages, with some highlighted in green and others in pink. Below the table are buttons for "Log QSO", "Stop", "Monitor", "Erase", "Decode", "Enable Tx", "Halt Tx", and "Tune". The "Monitor" button is highlighted in green. The frequency display shows "14.073 996".

UTC	dB	DT	Freq	Message
201730	2	0.2	977	~ K29V KN3E FM17
201730	-8	0.1	1163	~ CQ N6WKZ CM87 U.S.A.
201730	-8	0.1	1214	~ YV6IA WSFKX EL49
201730	-17	-0.4	1264	~ KC3AK WBSBHS EM35
201730	-7	-0.1	1355	~ TA6P KOEZW DM78
201730	-7	0.6	1408	~ CQ VE3NOO FN14 ~Canada
201730	-17	0.2	1458	~ HK4GSO KG4YUS EM81
201730	-6	0.7	1649	~ SV1IZY K4SHA EM72
201730	-11	0.8	1762	~ K2CDP WSGOL R-10
201730	-13	0.0	2006	~ CQ DX KC9LFD EN35 ~U.S.A.
201730	-11	0.2	2246	~ WA0LJM WS6K -16
201730	-11	0.0	2381	~ CQ W0QU EM48 U.S.A.
201730	-12	0.2	1159	~ K32K KK5II EM26
201730	-13	0.1	1401	~ SV8RYI KC9RDG EN62
201730	-16	0.1	1357	~ HK4GSO KB4XT EM71
----- 20m -----				
201745	-19	0.1	689	~ N4BRF K9DXR 73
201745	-6	0.2	789	~ CQ AK2B CM98 ~U.S.A.
201745	-14	0.1	1397	~ CQ VA2QA FN35 ~Canada
201745	-7	0.1	1469	~ N7GRB K0SAZ DM78
201745	8	0.1	1593	~ SV1IZY N6NKT CM97
201745	-16	0.1	1676	~ 421RZ N9RMA EM49
201745	9	0.0	2000	~ SV1IZY K6MKF CM97
201745	-9	-0.0	2090	~ K5S2O KD7GX +02
201745	-19	0.1	2155	~ CQ K8BL EN91 ~U.S.A.
201745	-21	-0.0	2246	~ WS6K WA0LJM R-06
201745	-24	0.2	1842	~ W4JFV CO2II EL83
201745	-3	1.6	1998	~ SV1IZY NN6XX CM87
201745	-15	0.1	2119	~ EA1BD JF1LMB PM95
201745	-23	0.2	2262	~ CQ N9KFW EM58 U.S.A.
201745	-24	0.1	2304	~ SV1IZY KD7WPJ CM97

The bottom window, titled "WSJT-X - Wide Graph", shows a waterfall plot of the frequency spectrum from 400 to 2400 kHz. The plot displays signal activity with a color scale from blue (low power) to red (high power). The frequency display shows "14.073 996".

WSJT-X Software 2001 to 2018

[https://en.wikipedia.org/wiki/WSJT_\(amateur_radio_software\)](https://en.wikipedia.org/wiki/WSJT_(amateur_radio_software))

FT8
JT4
JT9
JT9+JT65
JT65
QRA64
ISCAT
MSK144
WSPR
Echo
FreqCal

- Weak Signal Joe Taylor - eXtend
- >15,000 users in any given week
- Weak signal communications with DSP
- Block structure vs char. by char.
- Slow & fast communication modes
 - Moon bounce JT65
 - High speed meteor scatter MSK144
 - WSPR beacon
 - Weak Signal Propagation Reporter
- FT8 added in July 2017

FT8 WSJT-X Software

<https://physics.princeton.edu/pulsar/k1jt/wsjt-x.html>



WSJT-X

[Home](#)
[WSJT-X](#)
[WSJT](#)
[MAP65](#)
[WSPR](#)
[SimJT](#)
[Program Development](#)
[References](#)
[Support](#)

Description

WSJT-X implements communication protocols or "modes" called **FT8**, **JT4**, **JT9**, **JT65**, **QRA64**, **ISCAT**, **MSK144**, and **WSPR**, as well as one called **Echo** for detecting and measuring your own radio signals reflected from the Moon. These modes were all designed for making reliable, confirmed QSOs under extreme weak-signal conditions. All but **ISCAT** use nearly identical message structure and "source encoding," the efficient compression of standard messages used to make minimal QSOs. **JT65** and **QRA64** were designed for EME ("moonbounce") on the VHF/UHF bands; **JT65** has also proved very popular and effective for worldwide QRP communication at HF. **JT9** is optimized for the LF, MF, and HF bands. It is about 2 dB more sensitive than **JT65** while using less than 10% of the bandwidth. With either **JT9** or **JT65**, world-wide QSOs are possible with power levels of a few watts and compromise antennas. **JT4** and **QRA64** are optimized for EME on the VHF and higher bands, and especially the microwave bands from 2.3 to 24 GHz. **FT8** is operationally similar to **JT65** but is much faster, using T/R cycles only 15 s long. **MSK144** is used for Meteor Scatter on the VHF bands. Finally, as described more fully on [its own page](#), **WSPR** mode implements a protocol designed for probing potential propagation paths with low-power transmissions. **WSPR** is now fully implemented within WSJT-X, including automatic band-hopping.

FT8 WSJT-X Software

<https://physics.princeton.edu/pulsar/k1jt/wsjttx.html>

Windows

- Latest full release, Version 1.8: [wsjttx-1.8.0-win32.exe](#). (runs on Win XP, Vista, Win 7, Win 8, Win10, both 32- and 64-bit).

Linux

Installation instructions for Linux can be found [here](#) in the User Guide. Download the package file appropriate for your system, from the list below. (Versions installable with "apt-get" and "yum" will be made available as soon as our package maintainers create the packages.)

- Latest full release, Version 1.8
 - Debian, Ubuntu, ... (32-bit): [wsjttx 1.8.0 i386.deb](#)
 - Debian, Ubuntu, ... (64-bit): [wsjttx 1.8.0 amd64.deb](#)
 - Fedora, RedHat, ... (32-bit): [wsjttx-1.8.0.i686.rpm](#)
 - Fedora, RedHat, ... (64-bit): [wsjttx-1.8.0.x86_64.rpm](#)
 - Raspbian Jessie, ARMv6 ... : [wsjttx 1.8.0 armhf.deb](#)

Macintosh OS X:

Installation instructions for version 1.8 can be found [here](#) in the User Guide. Download the package file appropriate for your system:

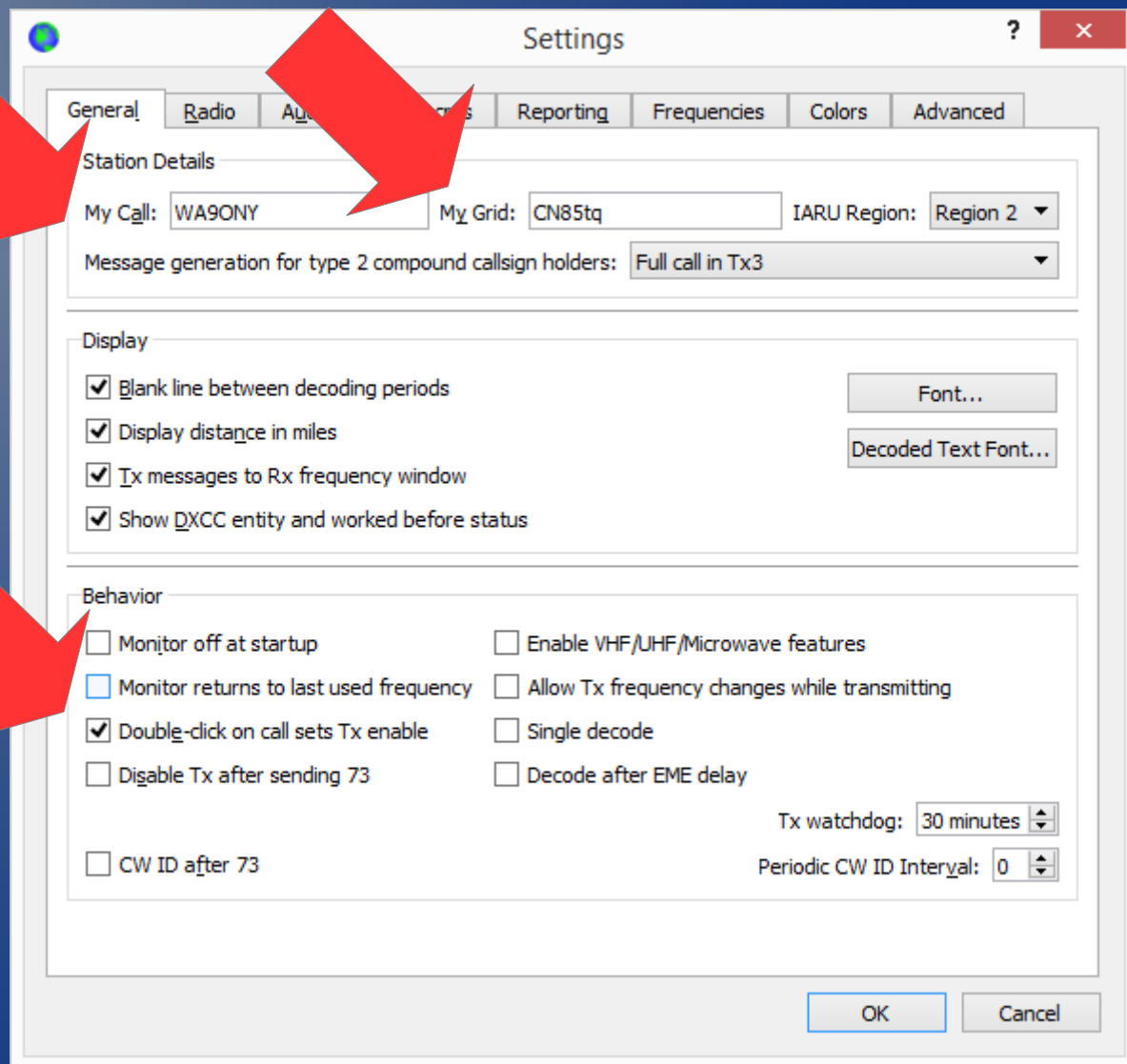
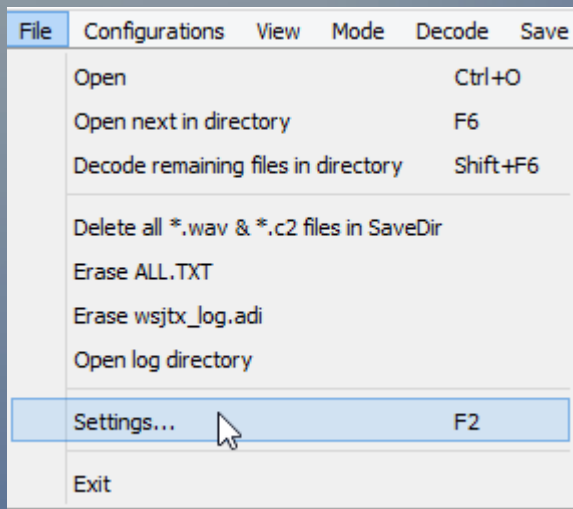
- Latest full release, Version 1.8
 - OS X 10.9 and later: [wsjttx-1.8.0-Darwin.dmg](#)

Source Code:

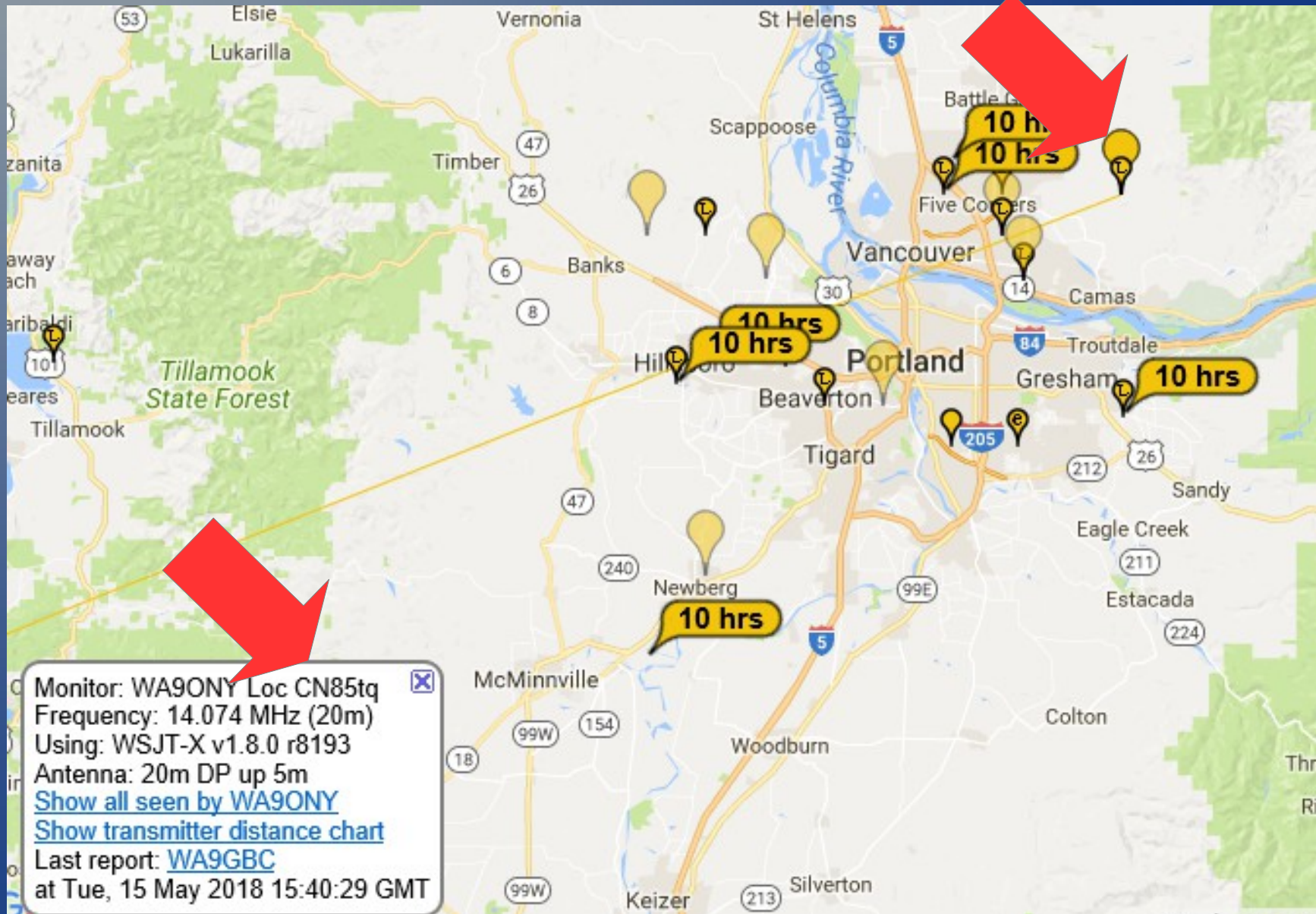
The package posted here contains all source code for *WSJT-X* as well as a snapshot of the Hamlib 3 sources and a CMake script to build *WSJT-X* on any supported platform.

- Latest full release, Version 1.8: [wsjttx-1.8.0.tgz](#)

WSJT-X V1.8 General Setup




Use 6 Characters Grid Square For PSK Reporter



Find Your Grid Square

www.levinecentral.com/ham/grid_square.php

Amateur Radio Ham Radio Maidenhead Grid Square Locator Map



Enter any address, city & state or zip:

or Enter any call sign: Data provided by QRZ.com

Submit

or Enter any a 4 or 6 character grid square:

Clear

[?? How does this work? Why doesn't this work? ??](#)

AdChoices

[Ham Radio Grid Square](#)

[Maidenhead Grid Locator](#)

[What Is My Grid Square](#)

Call [WA9ONY](#) found for [DAVID A HAWORTH](#)

Address found: 27901 NE 63RD ST,CAMAS,WA,98607,United States

Latitude: 45.6685 / 45° 40' 6" N Longitude: -122.386 / 122° 23' 9" W

Grid: [CN85tq](#)



Find Your Grid Square

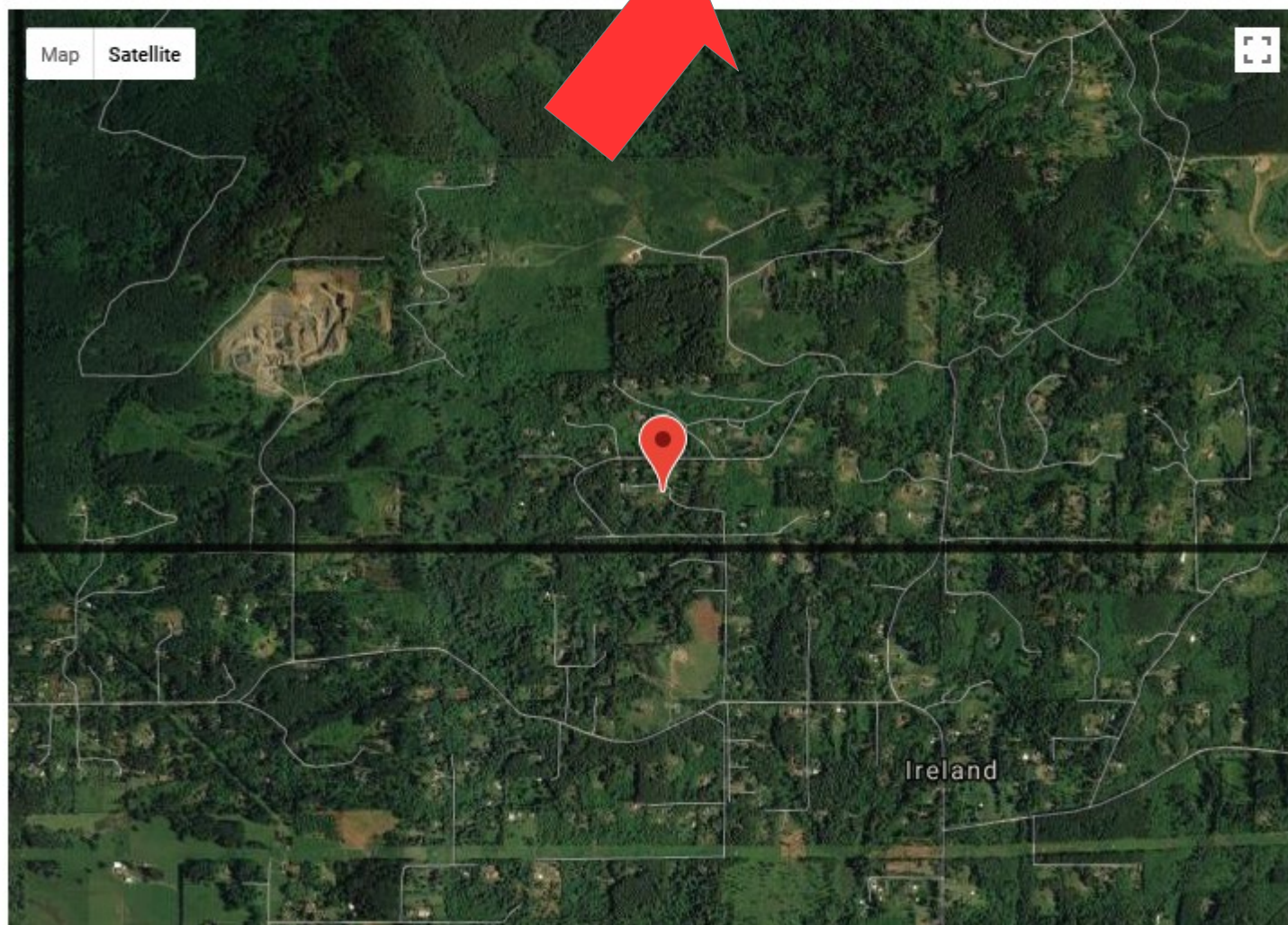
www.levinecentral.com/ham/grid_square.php

Call [WA9ONY](#) found for [DAVID A HAWORTH](#)

Address found: 27901 NE 63RD ST,CAMAS,WA,98607,United States

Latitude: 45.6685 / 45° 40' 6" N Longitude: -122.386 / 122° 23' 9" W

Grid: **CN85tq**





Enter Query... by Callsign

Search

Database

News

For

MFJ 1708SDR
SDR Transmit and Receive Switch



GIFT CERTIFICATES
AVAILABLE ONLINE

R&L
ELECTRONICS
www.randl.com

YAESU
The radio

AssociatedRad
800-497-1444

WA9ONY



DAVID A HAWORTH
27901 NE 63RD ST
CAMAS, WA 98607
USA

QSL: LoTW, eQSL, QRZ log, Club Log

Email: Use mouse to view..

XML Subscriber Lookups: 8526

Label

Biography

Detail

Logbook 3927

Web 98

Lookups 8526 (13235)

See Also [WA9ONY/KH6](#)

QRZ Record# 648422

QRZ Admin WA9ONY

Last Update 2017-11-01 00:40:15

Class Advanced Codes: HAI

Effective 2016-11-01

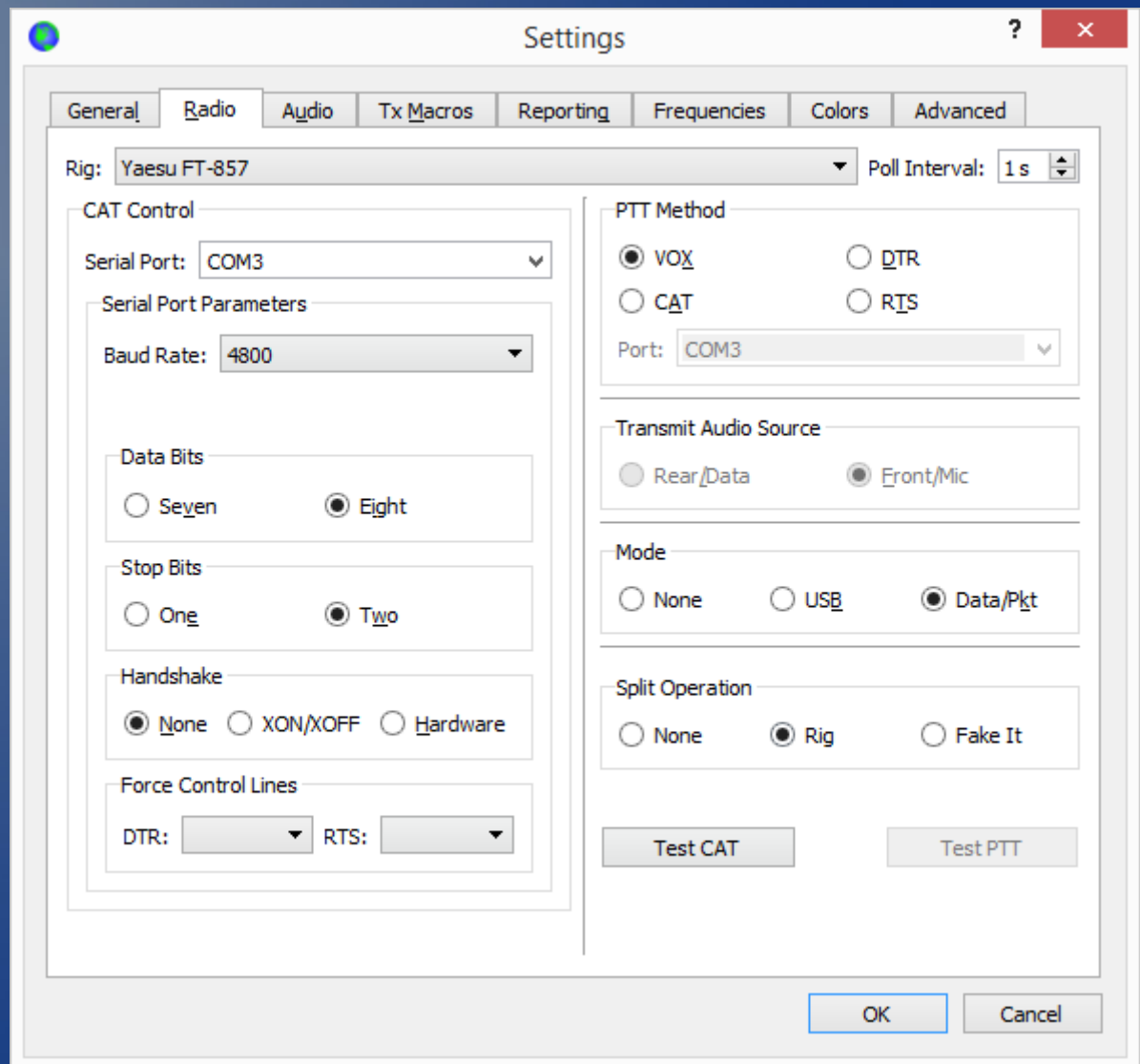
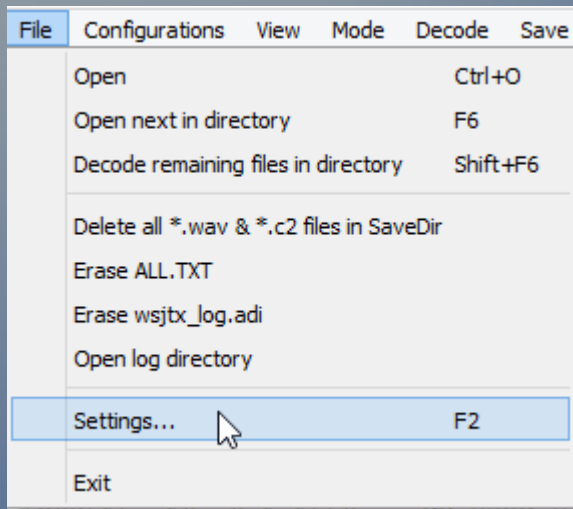
Expires 2027-01-27

Grid Square CN85tq

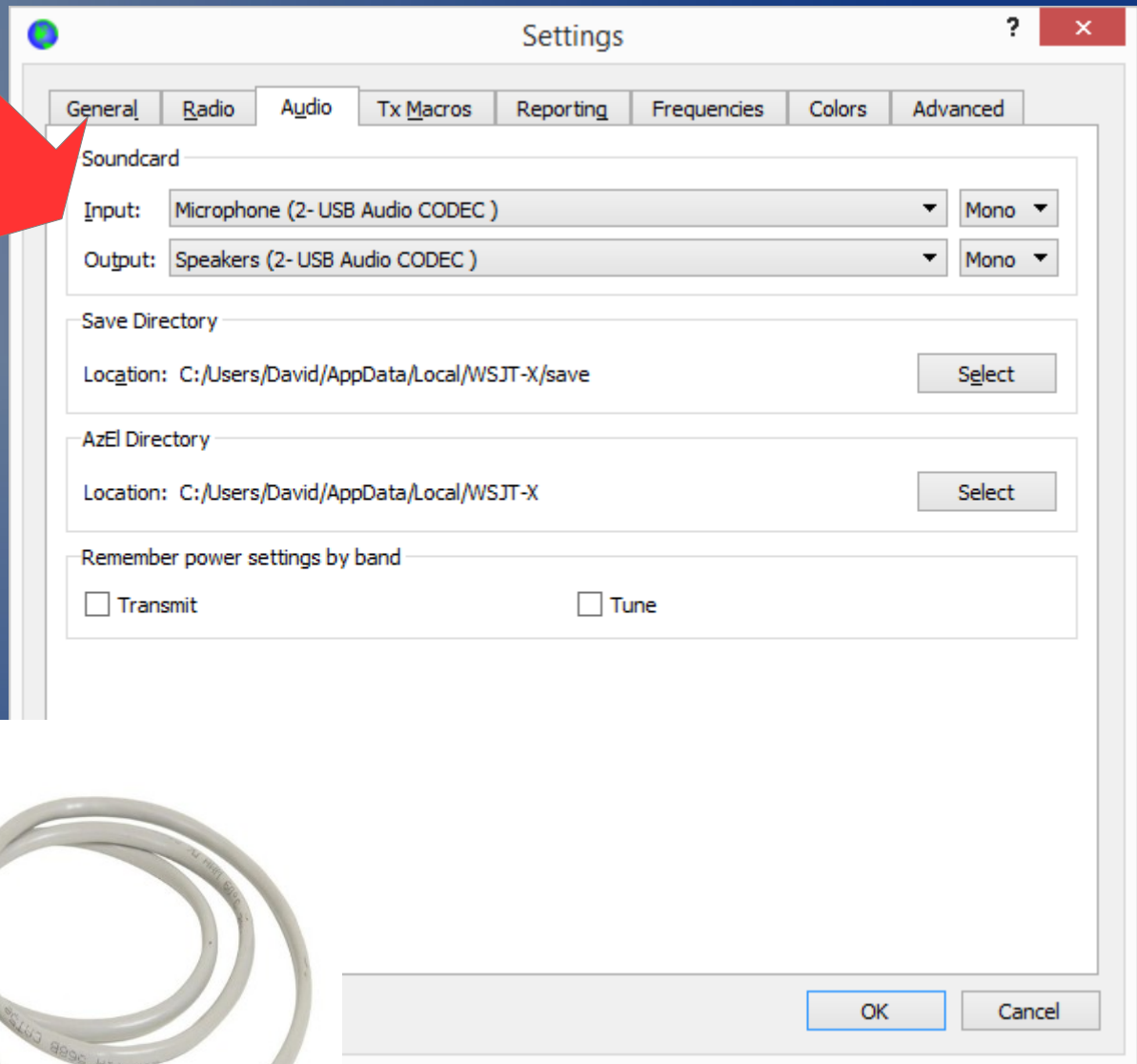
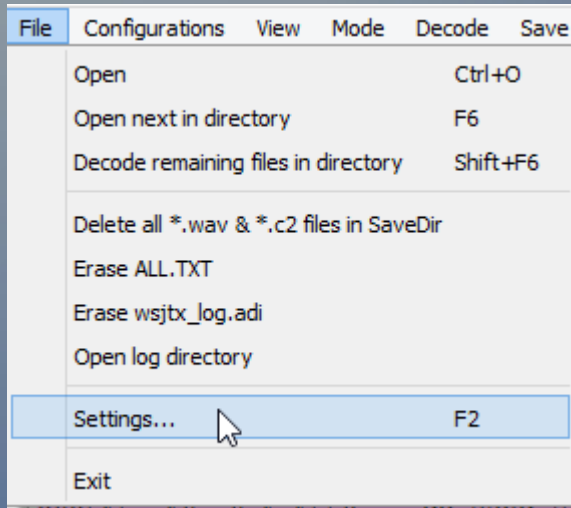
Geo Source Geocoded Address



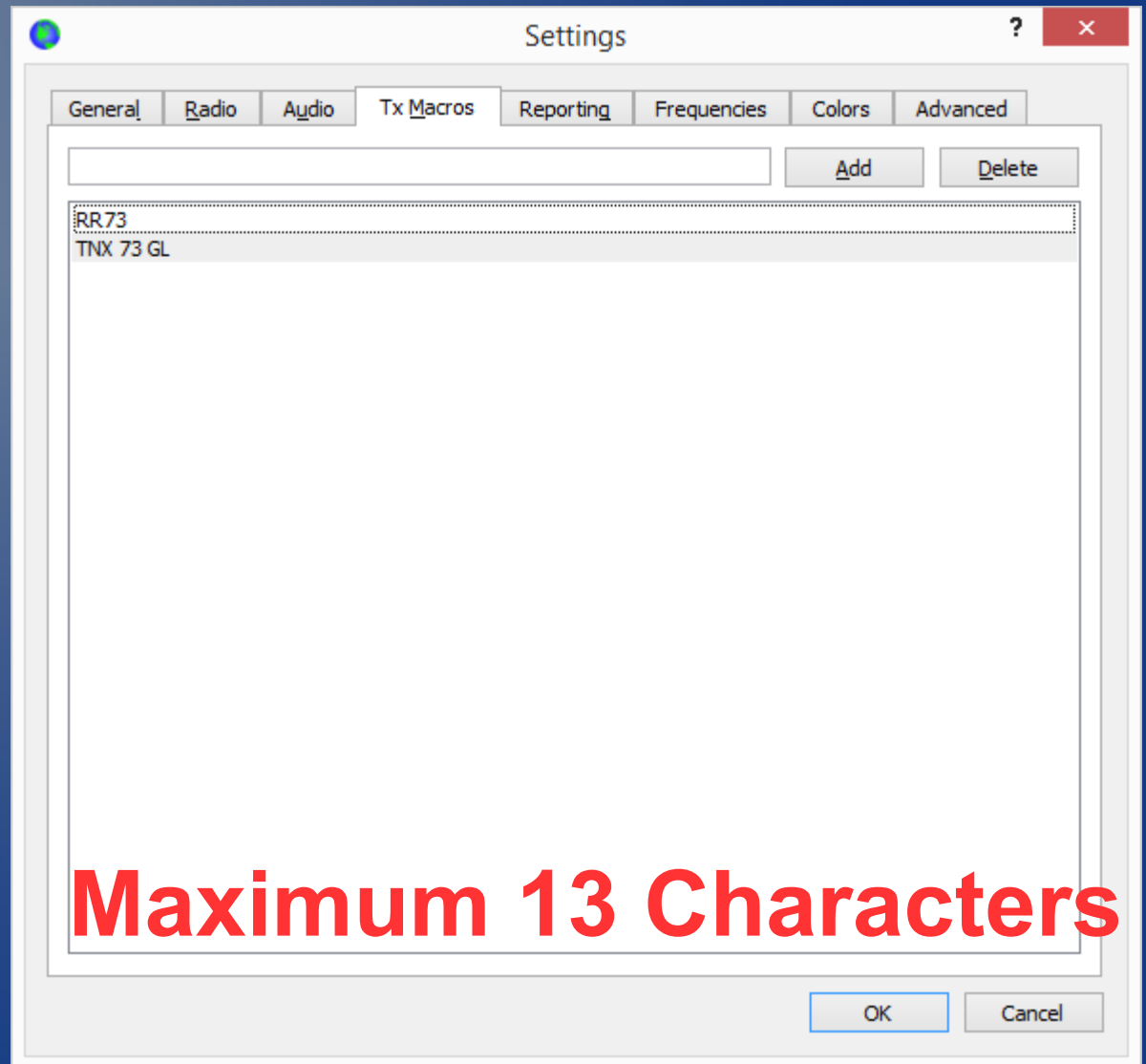
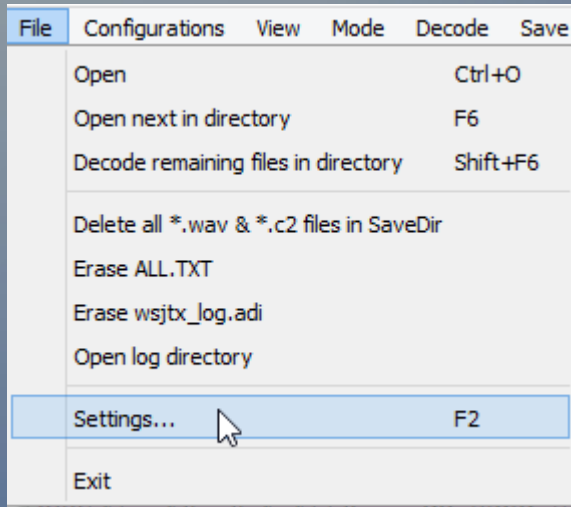
WSJT-X V1.8 Radio Setup



WSJT-X V1.8 Audio Setup



Free Text Messages Setup



TNX CLIFF 73G

SRI US QRM

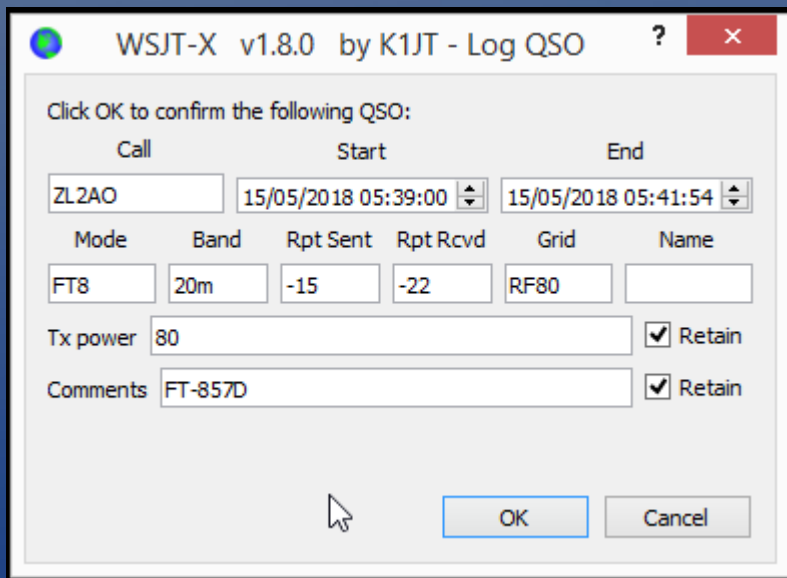
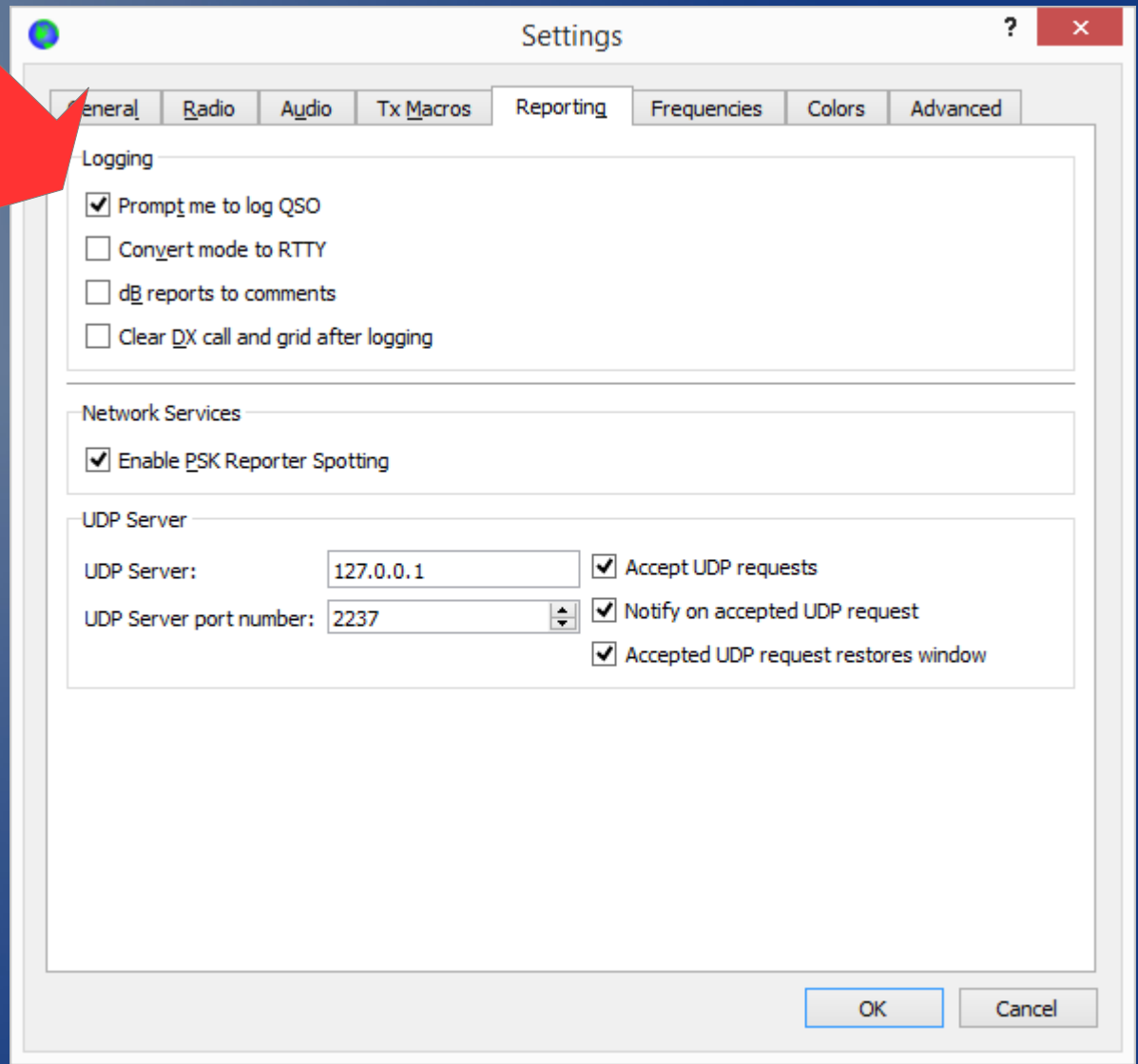
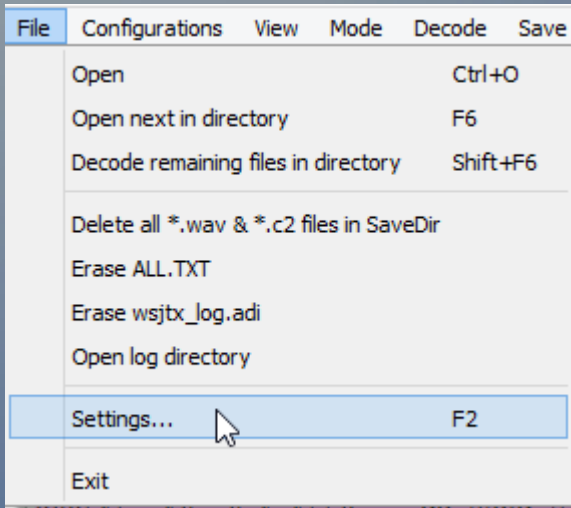
QSY JT65 323

TNX LOTW 73

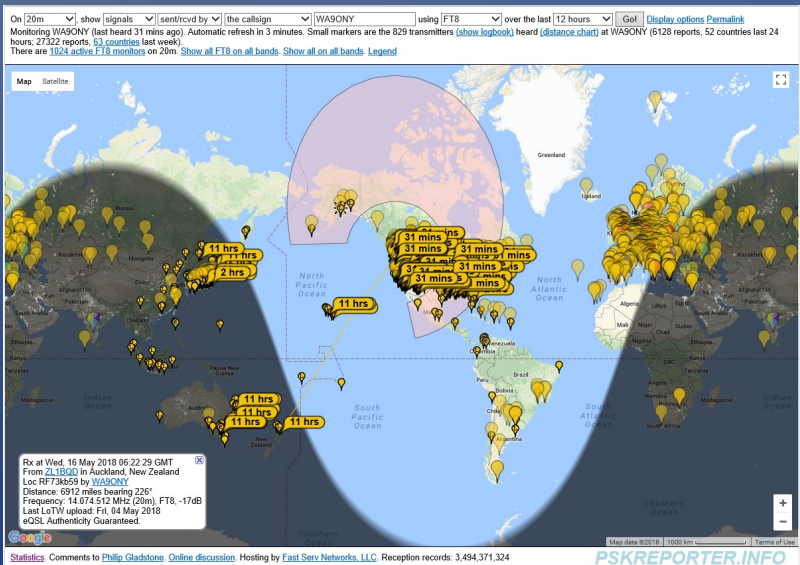
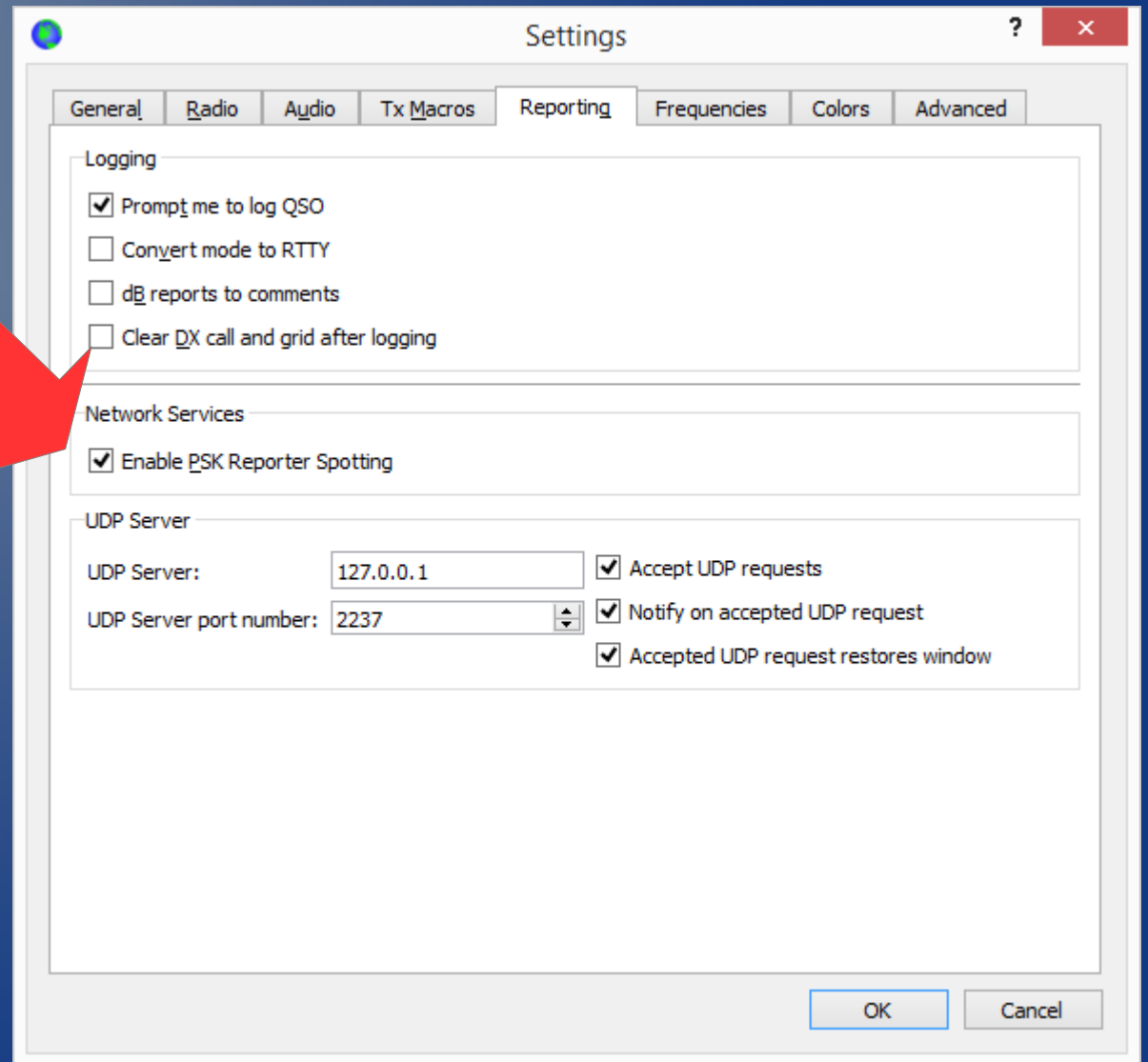
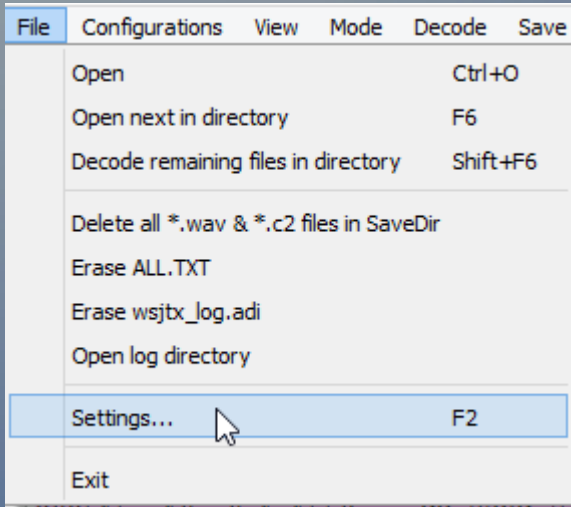
QSY AK TO FT9

CHAI QSY 10M

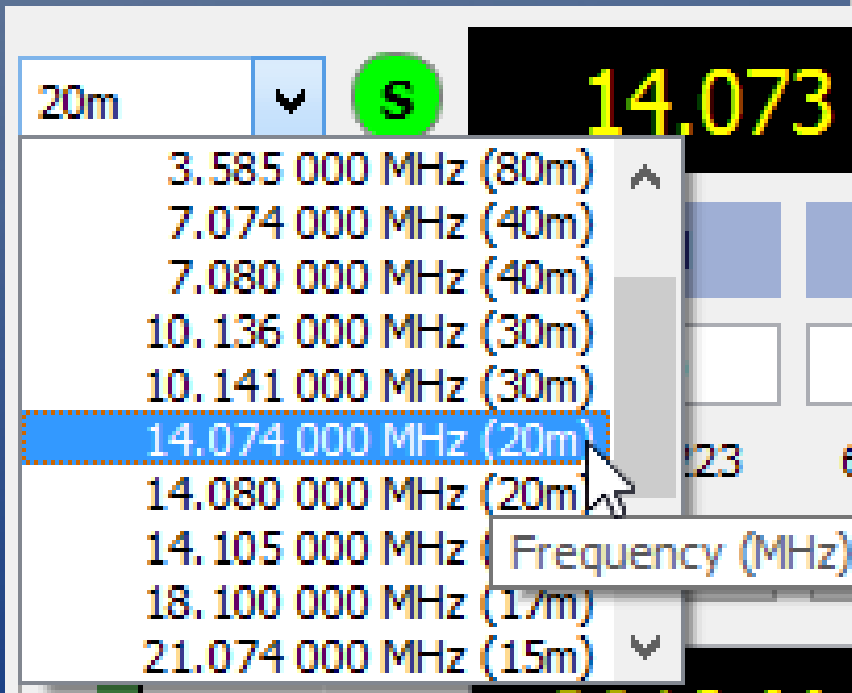
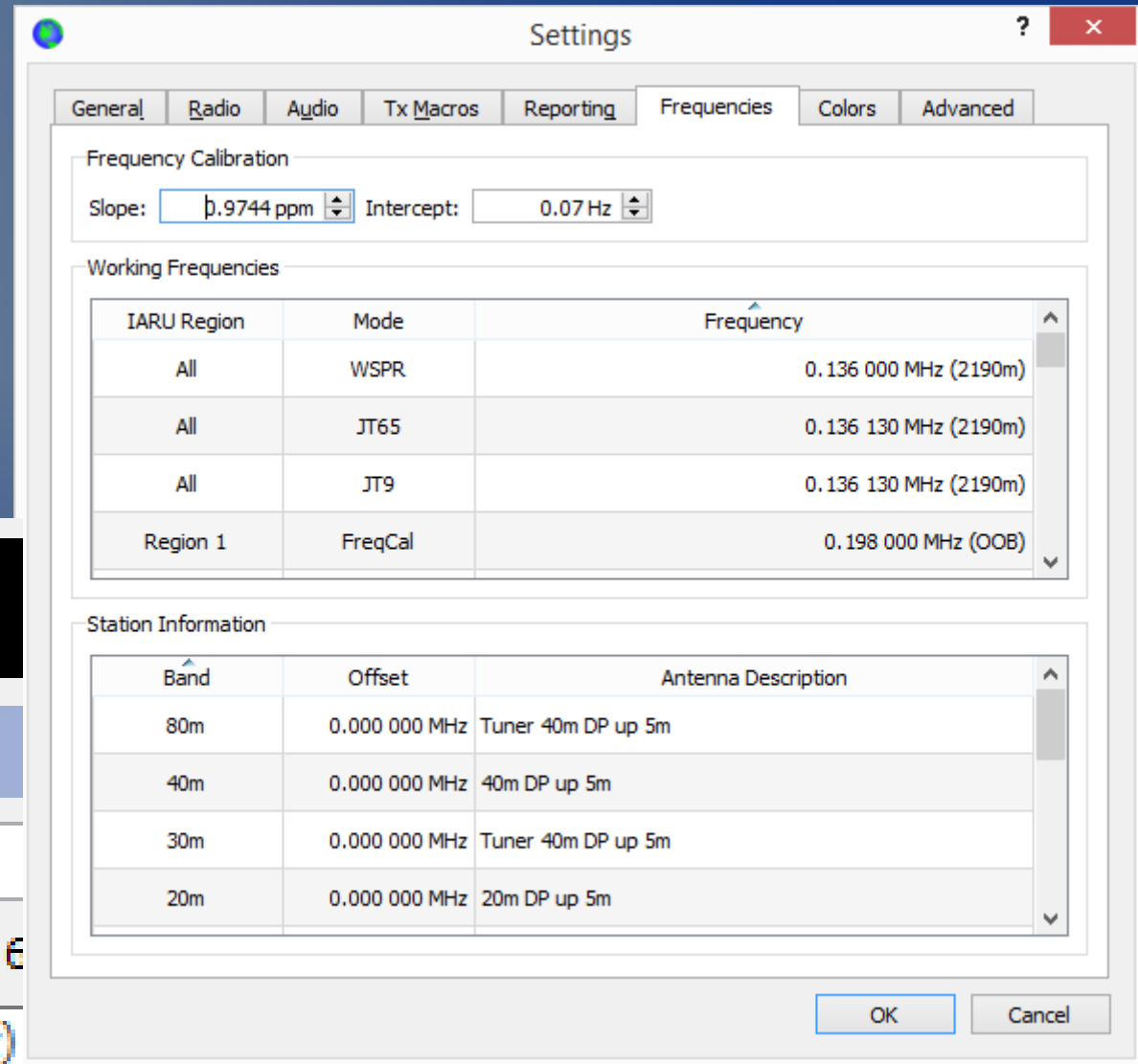
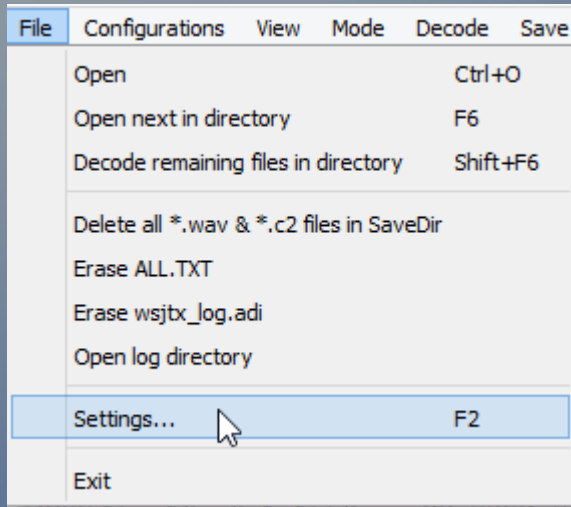
WSJT-X V1.8 Reporting Setup



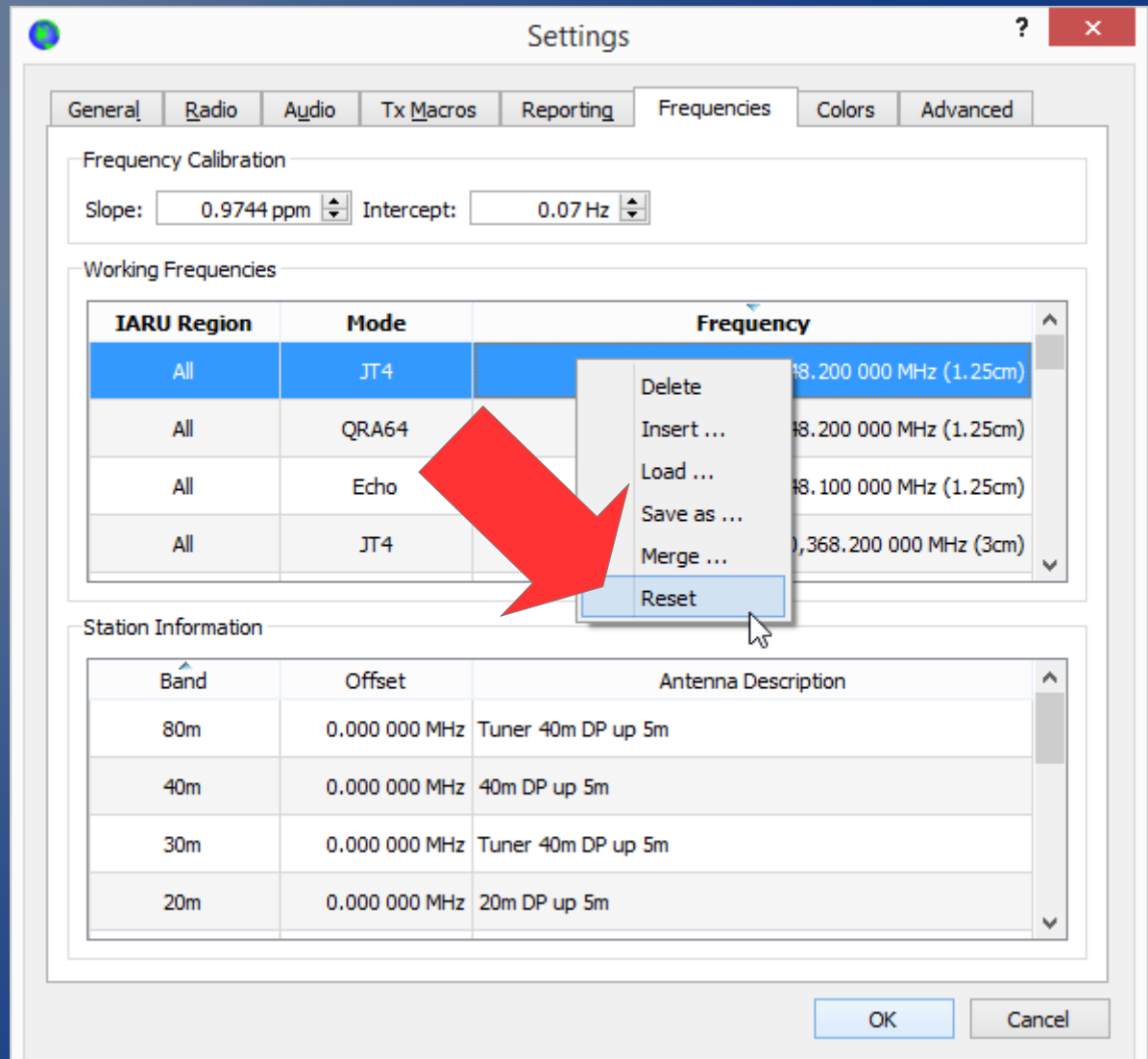
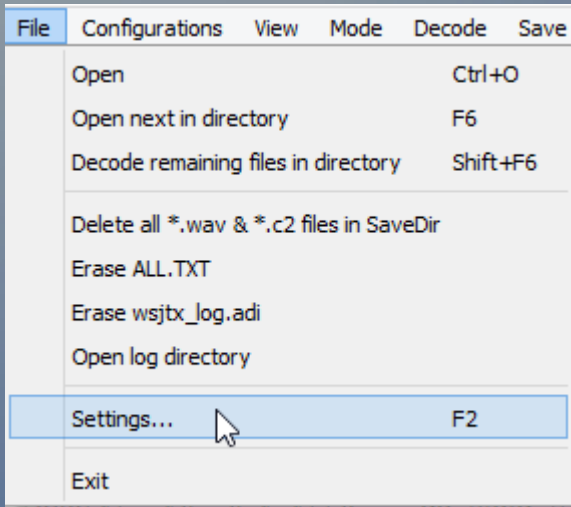
WSJT-X V1.8 Reporting Setup



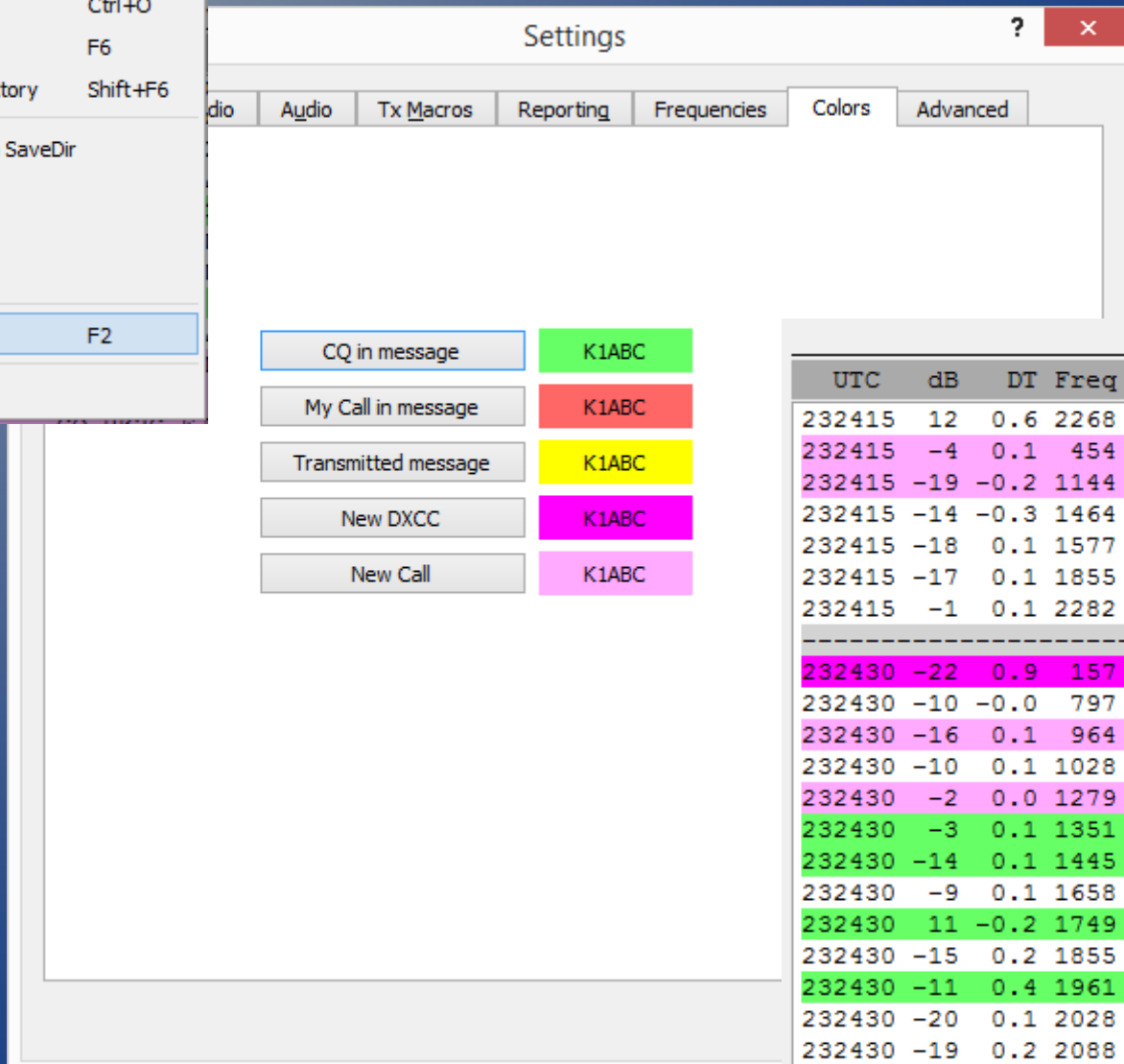
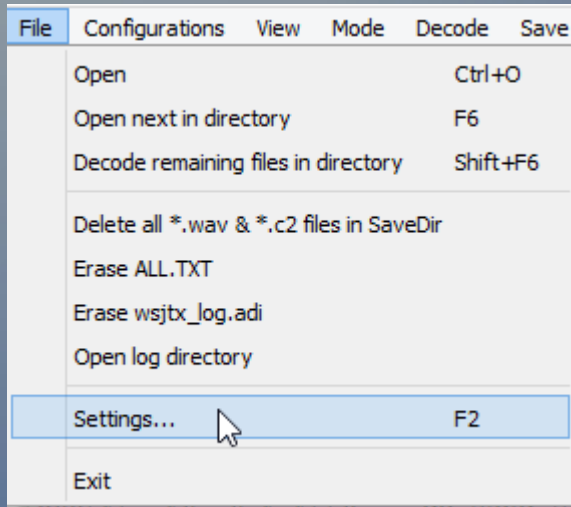
WSJT-X V1.8 Frequencies Setup



WSJT-X V1.8 Reset Frequencies



WSJT-X V1.8 Colors Setup



Band Activity

UTC	dB	DT	Freq	Message
232415	12	0.6	2268 ~	N3GX KI7RI CN85
232415	-4	0.1	454 ~	CQ W5KAL EM20 ~U.S.A.
232415	-19	-0.2	1144 ~	CQ K9CQS EM69 ~U.S.A.
232415	-14	-0.3	1464 ~	VE6TN JH1XYB 73
232415	-18	0.1	1577 ~	EI8GS WD1Z R+03
232415	-17	0.1	1855 ~	CE3CBM N6NKT 73
232415	-1	0.1	2282 ~	K7EII K7PPY DM33
----- 20m				
232430	-22	0.9	157 ~	CQ YS1CJA EK53 !El Salva
232430	-10	-0.0	797 ~	HK6JCF KM4JNR EM86
232430	-16	0.1	964 ~	CQ W8MSP EN72 ~U.S.A.
232430	-10	0.1	1028 ~	KE0N NOFON DN80
232430	-2	0.0	1279 ~	CQ PT2ARR GH54 ~Brazil
232430	-3	0.1	1351 ~	CQ AA1ON FN42 U.S.A.
232430	-14	0.1	1445 ~	CQ K3WW FN20 U.S.A.
232430	-9	0.1	1658 ~	K1GUY N7FKI CN85
232430	11	-0.2	1749 ~	CQ AA2MF EL87 U.S.A.
232430	-15	0.2	1855 ~	K2AQX CE3CBM -08
232430	-11	0.4	1961 ~	CQ KY7M DM52 U.S.A.
232430	-20	0.1	2028 ~	NE1D W4IHI EL87
232430	-19	0.2	2088 ~	KF1P W6OAT -14
232430	-17	0.1	2267 ~	K4WCK N3GX RRR
232430	-20	0.3	2320 ~	CQ WB3FSR FN20 U.S.A.

FT8 Color Decode

CQ in message	K1ABC
My Call in message	K1ABC
Transmitted message	K1ABC
New DXCC	K1ABC
New Call	K1ABC

WSJT-X v1.8.0 by K1JT

UTC	dB	DT	Freq	Message
231700	-21	0.4	2195	~ CQ CO6CG EL92 Cuba
231715	-10	0.3	2195	~ CO6CG JR7TEQ -19
231730	-13	0.1	2057	~ JF2RDG VK7BO +01
231745	-16	0.3	2195	~ CO6CG JR7TEQ -19
231800	-14	0.1	2057	~ JF2RDG VK7BO RR73
231830	-10	0.1	2056	~ CQ VK7BO QE38 ~Australia
231900	-13	0.1	2056	~ CQ VK7BO QE38 ~Australia
231930	-9	0.1	2056	~ WA9ONY VK7BO -17

UTC	dB	DT	Freq	Message
231245	-7	0.1	898	~ CQ VK2CA QF47
231309	Tx		1248	~ VK2CA WA9ONY CN85
231315	-10	0.1	898	~ CQ VK2CA QF47
231330	Tx		1248	~ VK2CA WA9ONY CN85
231345	-14	0.1	898	~ WA9ONY VK2CA -07
231400	Tx		1248	~ VK2CA WA9ONY R-14
231415	-5	0.1	898	~ WA9ONY VK2CA RRR
231430	Tx		1248	~ VK2CA WA9ONY 73
231445	-8	0.1	898	~ WA9ONY VK2CA 73
231830	-10	0.1	2056	~ CQ VK7BO QE38
231849	Tx		1248	~ VK7BO WA9ONY CN85
231900	-13	0.1	2056	~ CQ VK7BO QE38
231915	Tx		1248	~ VK7BO WA9ONY CN85
231930	-9	0.1	2056	~ WA9ONY VK7BO -17
231945	Tx		1248	~ VK7BO WA9ONY R-09

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

17m **S** **18.100 002**

Tx even/1st

DX Call: VK7BO DX Grid: QE38 Tx 1248 Hz Rx 2056 Hz Tx ← Rx Rx ← Tx

Az: 239 8186 mi Hold Tx Freq

Lookup Add Report -9 Auto Seq Call 1st NA VHF Contest

2018 May 09 23:20:02

38 dB

Generate Std Msgs

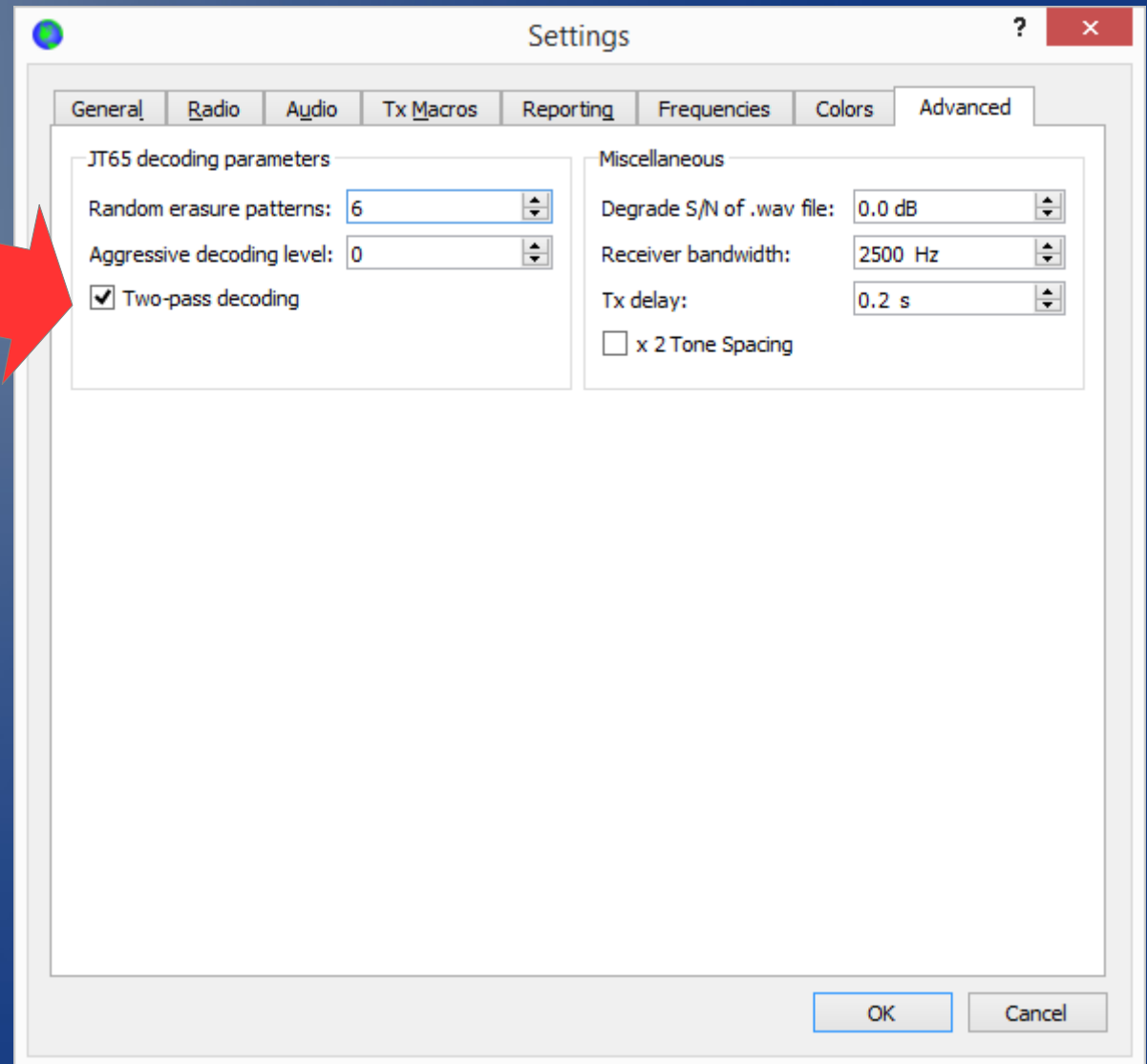
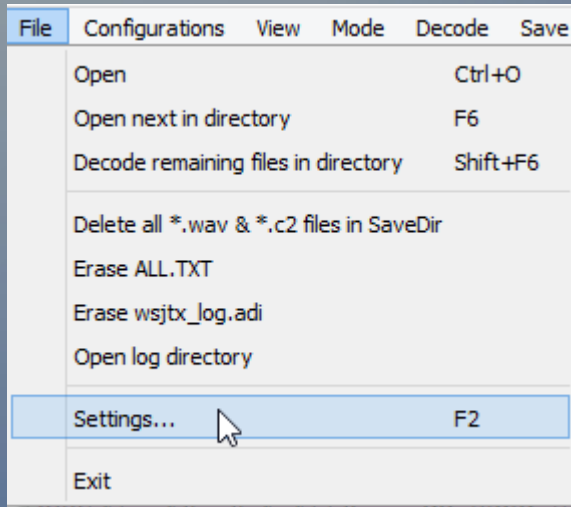
Next	Now
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

Messages: VK7BO WA9ONY CN85, VK7BO WA9ONY -09, VK7BO WA9ONY R-09, VK7BO WA9ONY RRR, VK7BO WA9ONY 73, CQ WA9ONY CN85

Tx 1, Tx 2, Tx 3, Tx 4, Tx 5, Tx 6

WSJT-X V1.8 Advanced Setup

2 Pass Decode



WSJT-X 2 Pass Decode

1st Pass



2nd Pass



UTC	dB	DT	Freq	Message
----- 20m				
015445	-15	0.1	462 ~	VE2FCR W6NWS -01
015445	-8	0.1	577 ~	VU2IBI W8VS EN82
015445	-1	0.1	707 ~	CQ KF6JXM DM13 U.S.A.
015445	-1	0.1	839 ~	AP2AM KF8PD -09
015445	-6	-0.2	932 ~	K9IJ K6PAD DM13
015445	-10	0.1	1004 ~	KD3K W5DTX EM12
015445	-23	0.1	1094 ~	K6ZVA WA2HIP 73
015445	-6	0.8	1200 ~	KB7RUQ AG4EX 73
015445	-24	0.1	1251 ~	NK2B N5RB EM54
015445	-4	-0.2	1352 ~	XP3A K9GL EN52
015445	1	0.1	1461 ~	AP2NK W4DXX -22
015445	-12	0.1	1607 ~	NK2B N9XHN EN50
015445	-17	0.1	1712 ~	KE0OVX K3WW -05
015445	-16	0.1	1764 ~	AP2NK WA3LAB FN20
015445	-3	0.1	2013 ~	RK4FF KB7MA R+01
015445	-10	0.2	2243 ~	CQ WB9VGJ DM34 U.S.A.
015445	6	0.2	2336 ~	AP2NK W6MYN DM03
015445	-19	0.9	285 ~	WA4GBT TG9ADV -08
015445	-24	0.1	363 ~	AP2NK K1PTF FN22
015445	-19	0.3	424 ~	AP2NK KQ9H EN53
015445	-18	0.1	481 ~	K3UA K5MFP R-04
015445	-19	0.3	866 ~	VU2CPL N6AR 73
015445	-11	0.1	1354 ~	XP3A K9ATX EN53
015445	-9	0.1	1437 ~	VU2CPL W8ASA EM79
015445	-19	-0.1	1664 ~	VU2CPL K2YYY DM79

Decoding 2 Stations K9GL & K9TX On Top of Each Other

1st Pass

UTC	dB	DT	Freq	Message
----- 20m				
015445	-15	0.1	462 ~	VE2FCR W6NWS -01
015445	-8	0.1	577 ~	VU2IBI W8VS EN82
015445	-1	0.1	707 ~	CQ KF6JXM DM13 U.S.A.
015445	-1	0.1	839 ~	AP2AM KF8PD -09
015445	-6	-0.2	932 ~	K9IJ K6PAD DM13
015445	-10	0.1	1004 ~	KD3K W5DTX EM12
015445	-23	0.1	1094 ~	K6ZVA WA2HIP 73
015445	-6	0.8	1200 ~	KB7RUQ AG4EX 73
015445	-24	0.1	1251 ~	NK2B N5RB EM54
015445	-4	-0.2	1352 ~	XP3A K9GL EN52
015445	1	0.1	1461 ~	AP2NK W4DXX -22
015445	-12	0.1	1607 ~	NK2B N9XHN EN50
015445	-17	0.1	1712 ~	KE0OVX K3WW -05
015445	-16	0.1	1764 ~	AP2NK WA3LAB FN20
015445	-3	0.1	2013 ~	RK4FF KB7MA R+01
015445	-10	0.2	2243 ~	CQ WB9VGJ DM34 U.S.A.
015445	6	0.2	2336 ~	AP2NK W6MYN DM03
015445	-19	0.9	285 ~	WA4GBT TG9ADV -08
015445	-24	0.1	363 ~	AP2NK K1PTF FN22
015445	-19	0.3	424 ~	AP2NK KQ9H EN53
015445	-18	0.1	481 ~	K3UA K5MFP R-04
015445	-19	0.3	866 ~	VU2CPL N6AR 73
015445	-11	0.1	1354 ~	XP3A K9ATX EN53
015445	-9	0.1	1437 ~	VU2CPL W8ASA EM79
015445	-19	-0.1	1664 ~	VU2CPL K2YYY DM79

2nd Pass

WSJT-X V1.8 Main Window Setup

WSJT-X v1.8.0 by K1JT

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message
-----	----	----	------	---------

Rx Frequency

UTC	dB	DT	Freq	Message
-----	----	----	------	---------

Auto Seq & Call 1st

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

6m **S** **50.313 001** Tx even/1st

DX Call **Grid** Hz Tx ← Rx

N6NU **Report** Rx ← Tx

Az: 183 56 Hold Tx Freq

Lookup Addr **Report**

Auto Seq Call 1st

NA VHF Contest

Generate Std Msgs

	Next	Now	Pwr
N6NU WA9ONY CN85	<input type="radio"/>	<input type="radio"/> Tx 1	
N6NU WA9ONY +12	<input type="radio"/>	<input type="radio"/> Tx 2	
N6NU WA9ONY R+12	<input type="radio"/>	<input type="radio"/> Tx 3	
N6NU WA9ONY RRR	<input type="radio"/>	<input type="radio"/> Tx 4	
N6NU WA9ONY 73	<input type="radio"/>	<input type="radio"/> Tx 5	
CQ WA9ONY CN85	<input checked="" type="radio"/>	<input type="radio"/> Tx 6	

Receiving FT8 6/15 WD:30m

WSJT-X V1.8 Main Window Setup

The screenshot displays the WSJT-X v1.8.0 software interface. The window title is "WSJT-X v1.8.0 by K1JT". The menu bar includes "File", "Configurations", "View", "Mode", "Decode", "Save", "Tools", and "Help".

The interface is divided into several sections:

- Band Activity** and **Rx Frequency**: Two large empty tables with columns for UTC, dB, DT, Freq, and Message.
- Control Panel**: A row of buttons including "Log QSO", "Stop", "Monitor" (highlighted in green), "Erase", "Decode", "Enable Tx", "Halt Tx", "Tune", and "Menus".
- Frequency and Mode**: A dropdown menu set to "6m" and a frequency display showing "50.313 001".
- Call and Grid**: Fields for "DX Call" (N6NU), "DX Grid" (CM87), and "Tx" (105). A red arrow points to the "Rx 105" field.
- Hold Tx Freq**: A checked checkbox labeled "Hold Tx Freq".
- Message Queue**: A list of messages with "Next" and "Now" columns. The "Now" column has buttons labeled "Tx 1" through "Tx 6". The selected message is "CQ WA9ONY CN85".
- Time and Date**: A display showing "2018 May 09 20:47:51".
- Bottom Bar**: A status bar showing "Receiving" (green), "FT8" (blue), and "6/15 WD:30m".

WSJT-X V1.8 Main Window Setup

WSJT-X v1.8.0 by K1JT

File Configurations View Mode Decode Save Tools Help

Band Activity Rx Frequency

UTC dB DT Freq Message UTC dB DT Freq Message

Audio set to ~40 to 60

6m **S** 50.313 001

80
60
40
20
0
37 dB

Stop Monitor Erase Decode Enable Tx Halt Tx Tune Menus

Tx even/1st

DX Call N6NU DX Grid CM87 Tx 1051 Hz Tx ← Rx Rx 1051 Hz Rx ← Tx

Az: 183 564 mi Hold Tx Freq

Lookup Add Report 12 Auto Seq Call 1st NA VHF Contest

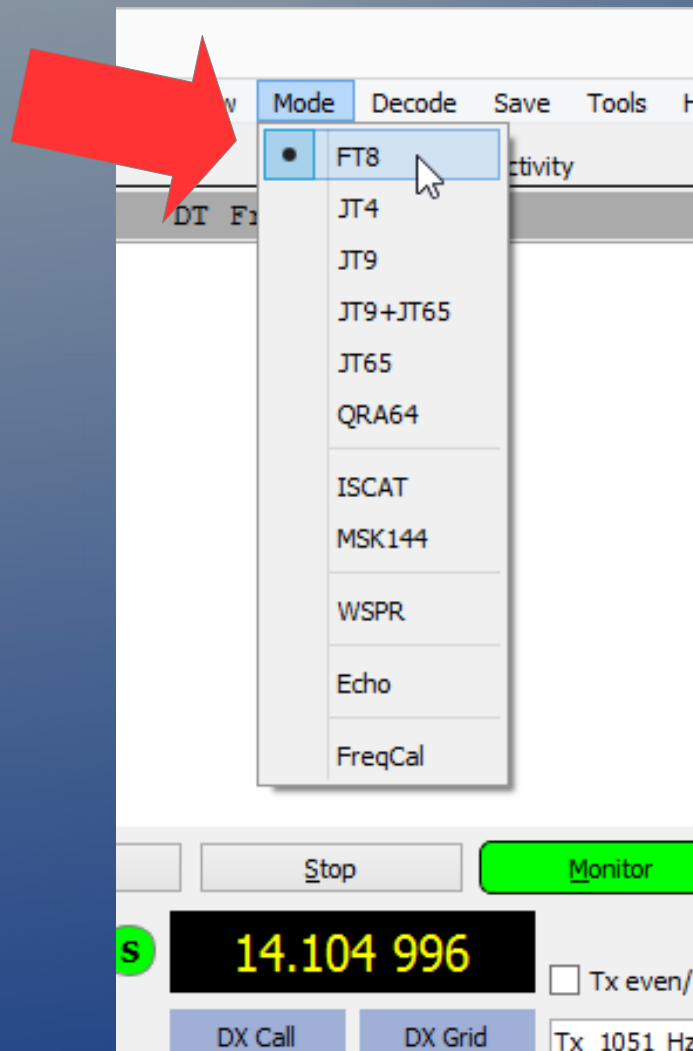
2018 May 09 20:47:51

Generate Std Msgs

	Next	Now
N6NU WA9ONY CN85	<input type="radio"/>	Tx 1
N6NU WA9ONY +12	<input type="radio"/>	Tx 2
N6NU WA9ONY R+12	<input type="radio"/>	Tx 3
N6NU WA9ONY RRR	<input type="radio"/>	Tx 4
N6NU WA9ONY 73	<input type="radio"/>	Tx 5
CQ WA9ONY CN85	<input checked="" type="radio"/>	Tx 6

Receiving FT8 6/15 WD:30m

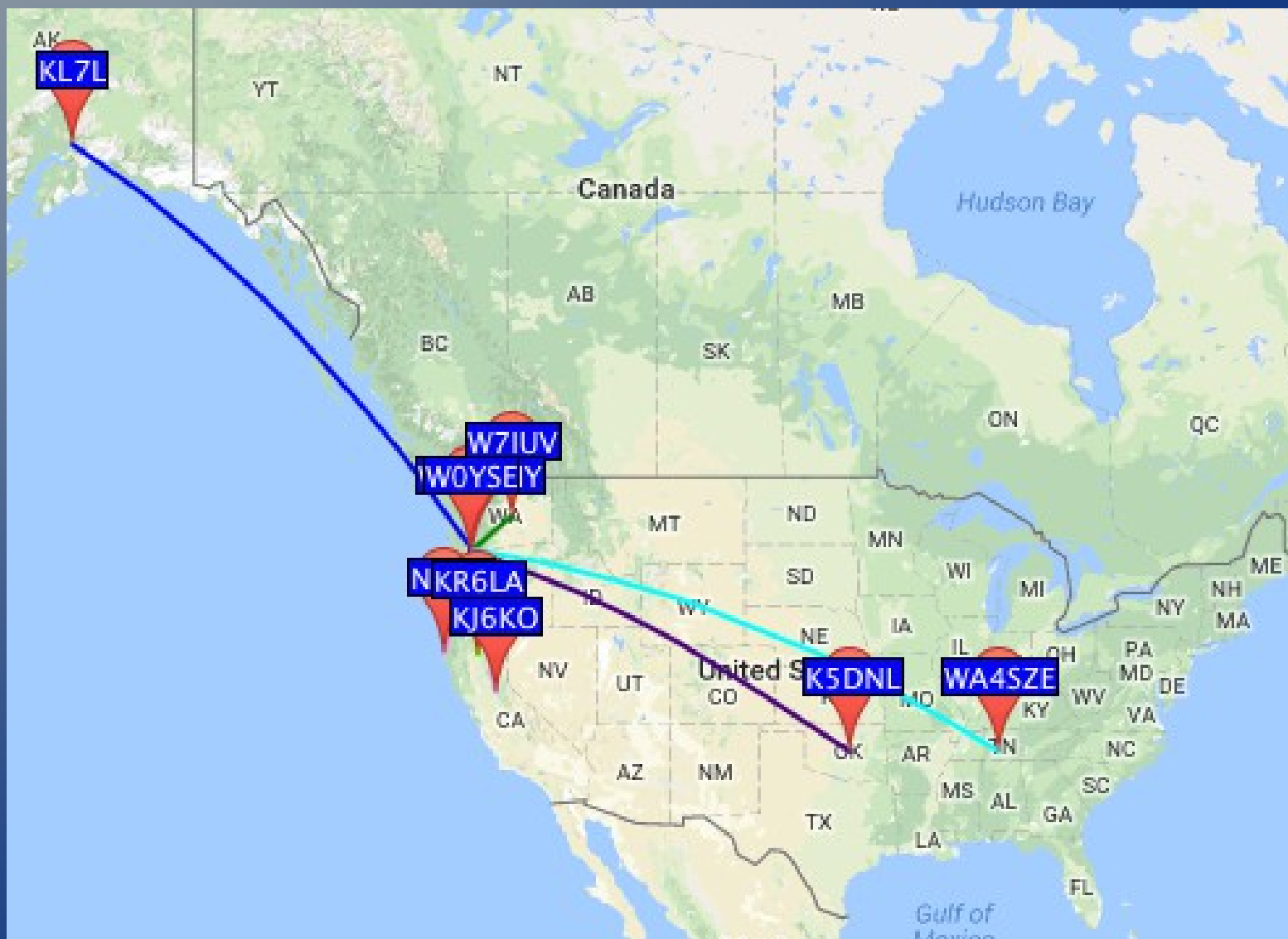
WSJT-X V1.8 Main Window Setup



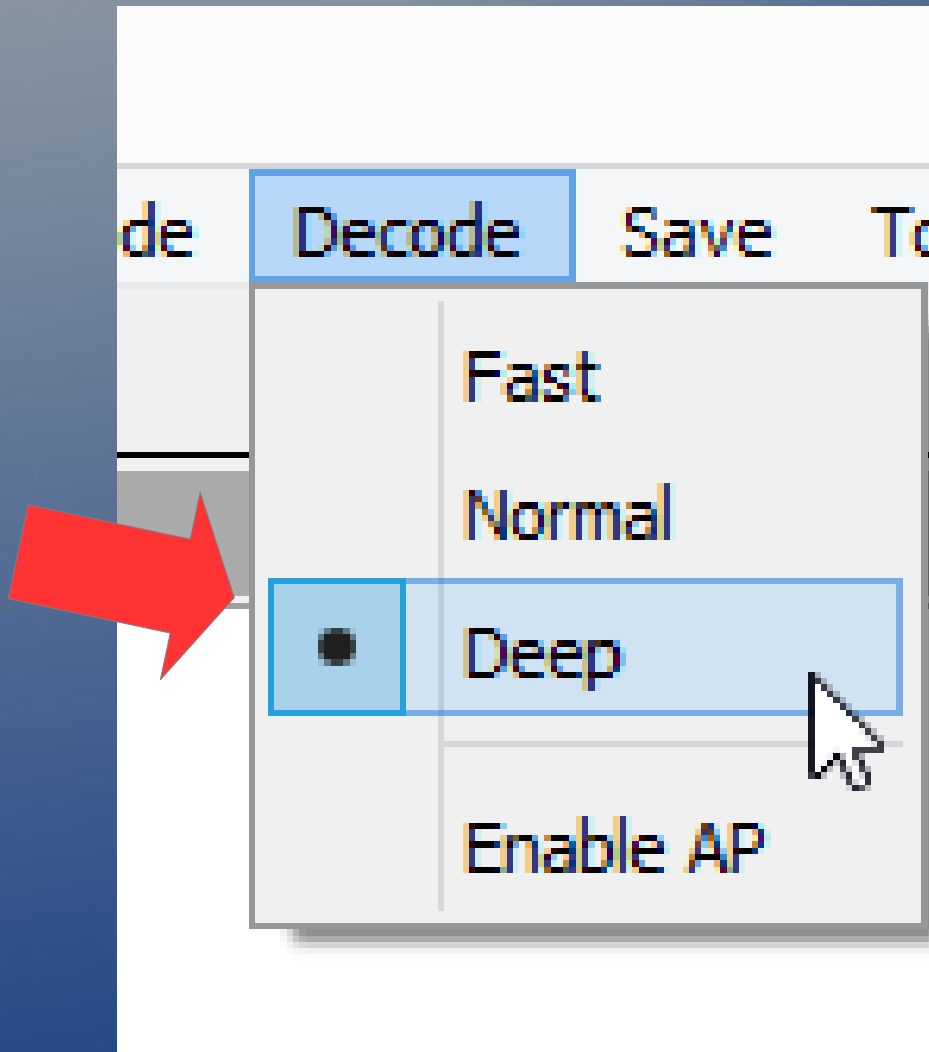
- WSJT-X has many digital modes of operation.
- After using FT8 try WSPR: Weak Signal Propagation Reporting

WSPR 630m Monitoring

WSPRnet wsprrnet.org/drupal/

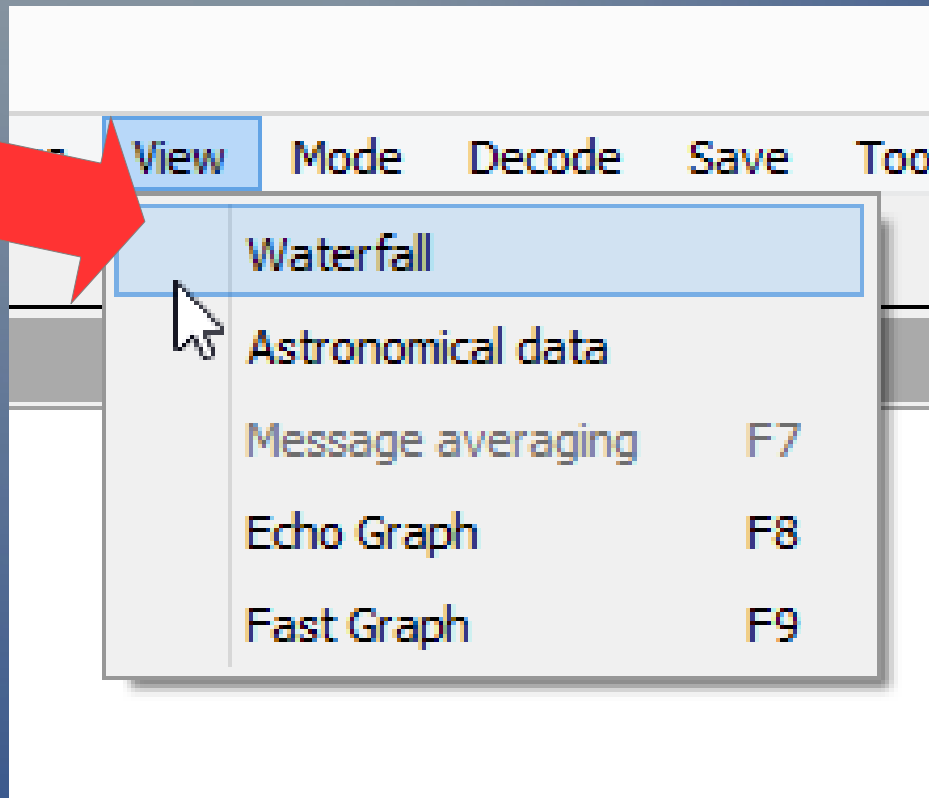


WSJT-X V1.8 Main Window Setup

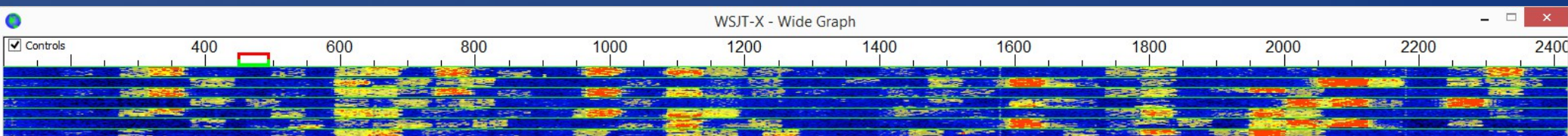


- Start with Deep
- Deep takes more computer processing power
- Select Normal or Fast if having decode problems with Deep

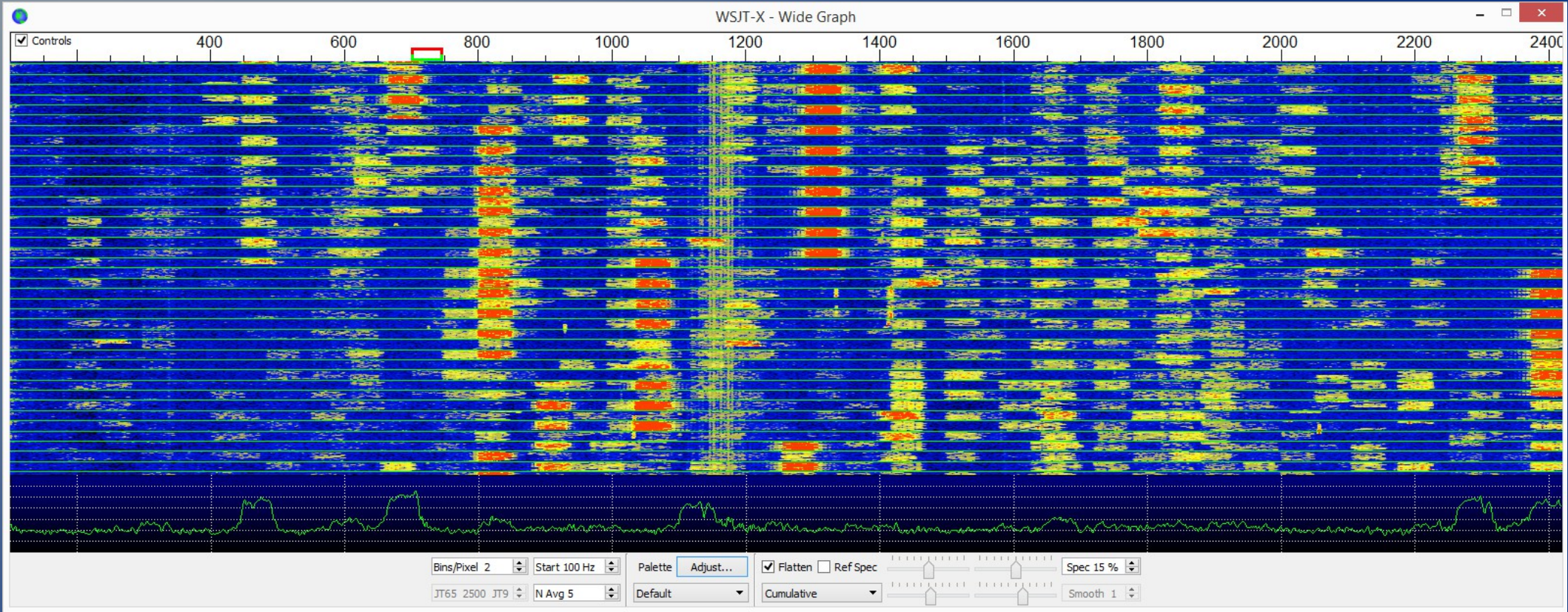
Turn On Waterfall Graph



- Shows all signals in the bandpass versus time
- Shows received signals
- Used to select clear frequency to call stations or CQ

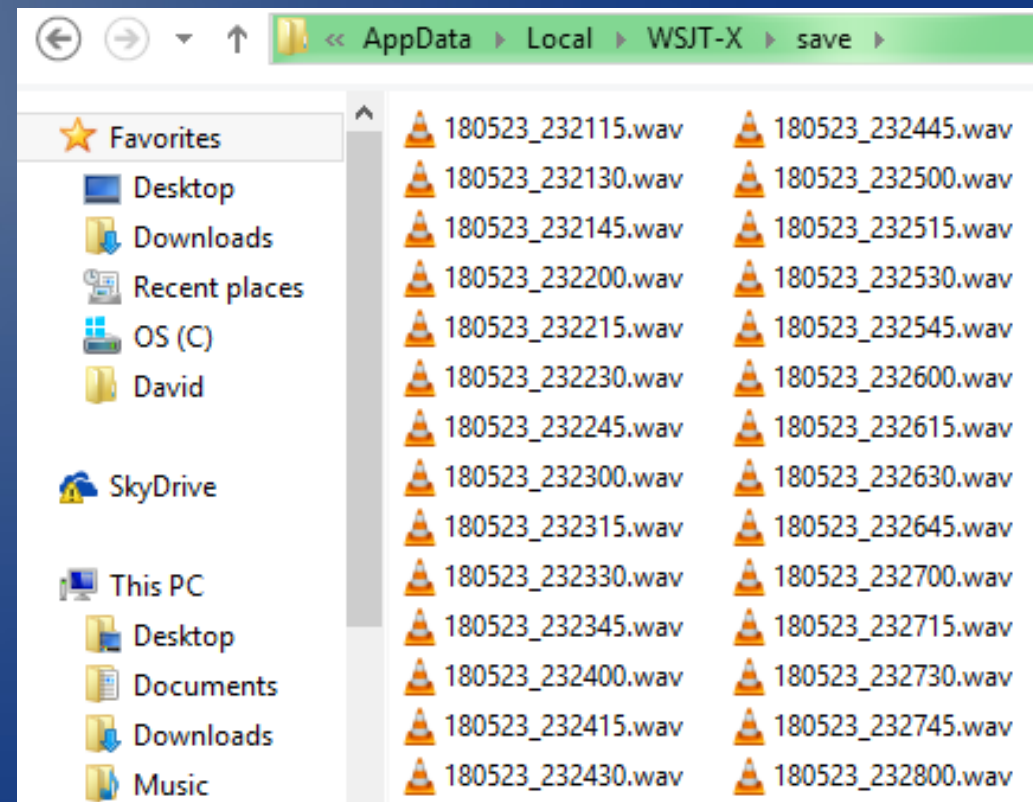
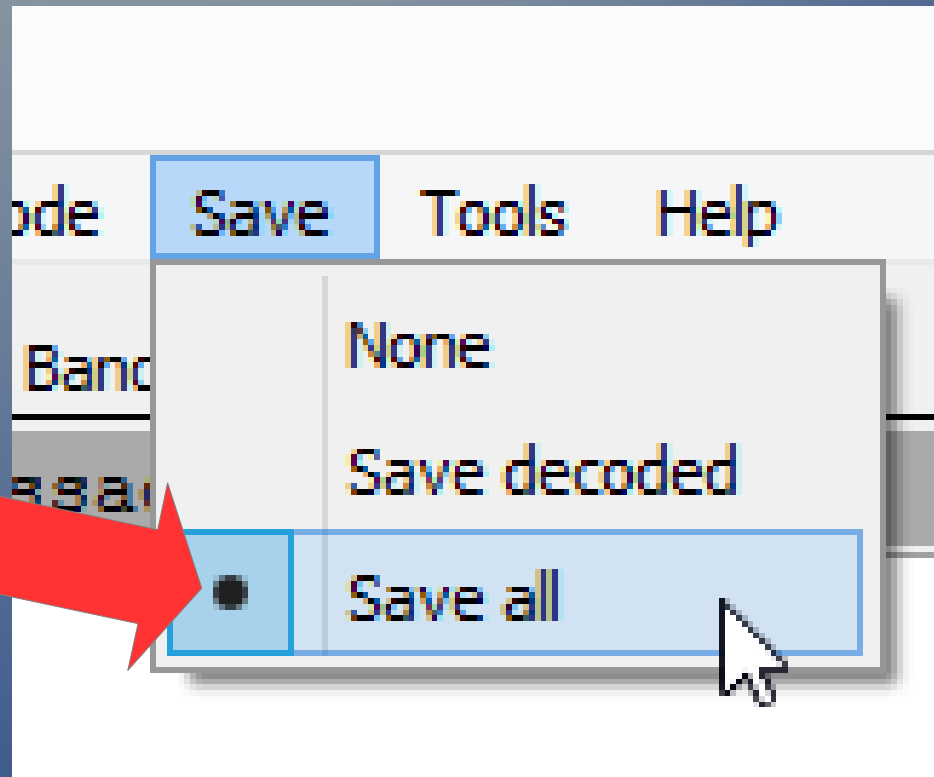


FT8 Waterfall Graph



WSJT-X V1.8 Main Window Setup

- Saves decode files
- Save audio files



WSJT-X Saved Files

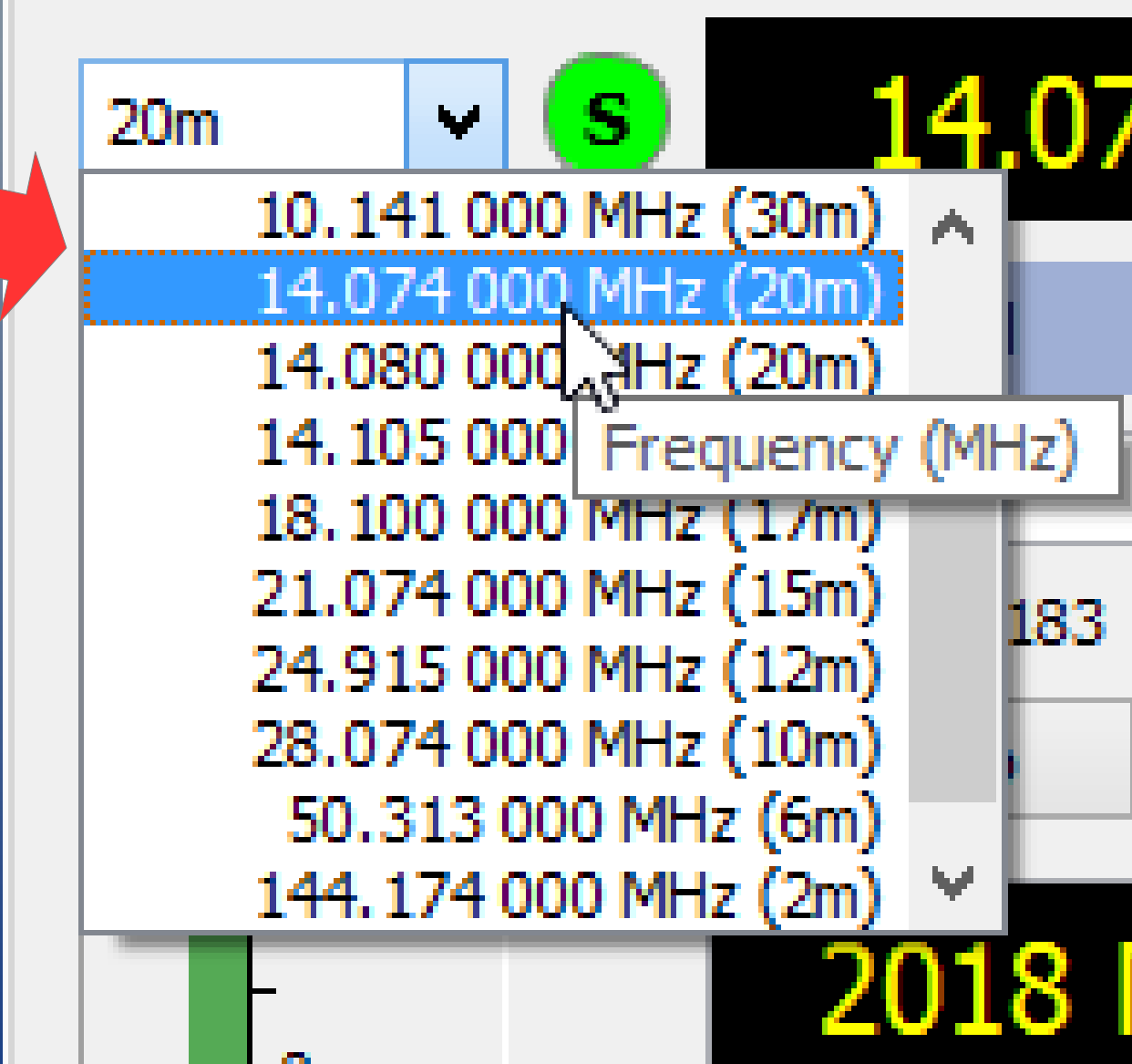
The screenshot shows a Windows File Explorer window titled "WSJT-X" with the address bar set to "David Haworth > AppData > Local > WSJT-X". The left sidebar shows "Favorites" and "This PC" sections. The main pane displays a list of files and folders. A red arrow points to the "Favorites" section, and another red arrow points to the "wsjtx_log.adi" file. A context menu is open over the "wsjtx_log.adi" file, with "Open log directory" highlighted.

Name	Date modified	Type	Size
save	5/11/2018 3:02 PM	Folder	
ALL.TXT	5/11/2018 3:04 PM	Text Document	2 KB
ALL_WSPR.TXT	1/23/2018 7:35 PM	Text Document	101 KB
azel.dat	3/9/2018 4:41 PM	DAT File	4 KB
CALL3.OLD	1/20/2018 1:03 AM	DAT File	28 KB
CALL3.TXT	1/20/2018 1:03 AM	Text Document	2 KB
fcsl2.out	11/2/2017 5:02 PM	OUT File	1 KB
fmt.bak	11/2/2017 4:59 PM	Text Document	15 KB
FoxQSO.txt	4/10/2018 2:48 PM	Text Document	1 KB
freq.qrg	10/24/2017 9:32 AM	Text Document	2 KB
hashtable.txt	1/23/2018 7:35 PM	Text Document	101 KB
jt9_wisdom.dat	5/4/2018 1:02 PM	DAT File	4 KB
refspec.dat	9/1/2017 10:58 AM	DAT File	203 KB
timer.out	5/4/2018 1:02 PM	OUT File	1 KB
WSJT-X.ini	5/9/2018 5:42 PM	Configuration sett...	15 KB
wsjtx.log	5/9/2018 5:42 PM	Text Document	325 KB
wsjtx_log.adi	5/9/2018 5:42 PM	ADI File	1,063 KB
wsjtx_wisdom.dat	5/4/2018 1:02 PM	DAT File	4 KB
WSPR_history.txt	1/23/2018 7:35 PM	Text Document	101 KB
wspr_timer.out	1/23/2018 7:35 PM	OUT File	1 KB
wspr_wisdom.dat	1/23/2018 7:35 PM	DAT File	2 KB

Context Menu Options:

- Open (Ctrl+O)
- Open next in directory (F6)
- Decode remaining files in directory (Shift+F6)
- Delete all *.wav & *.c2 files in SaveDir
- Erase ALL.TXT
- Erase wsjtx_log.adi
- Open log directory (highlighted)
- Settings... (F2)
- Exit

WSJT-X V1.8 Band Setup



The screenshot shows the WSJT-X V1.8 Band Setup interface. A dropdown menu is open, displaying a list of frequency bands. A red arrow points to the menu. The selected band is 14.074 000 MHz (20m). The current frequency is 14.074 000 MHz, and the date is 2018 1 18.

Band	Frequency (MHz)
30m	10.141 000
20m	14.074 000
20m	14.080 000
20m	14.105 000
17m	18.100 000
15m	21.074 000
12m	24.915 000
10m	28.074 000
6m	50.313 000
2m	144.174 000

FT8 Monitor Mode

WSJT-X v1.8.0 by K1JT

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message
210845	-18	0.2	1922	EA7OWP RD3K02 EM20
210845	-19	0.1	1939	EA3IBK KE4JD RRR
210845	2	0.3	2070	TF3PPN WN4N EM80
210845	2	0.1	2172	VE7BEF K6KQV CM87
----- 20m				
210900	8	0.1	501	VP5/AK5Q WB6EWM
210900	-8	0.1	954	VE7BEF WB6VEX CM87
210900	-6	0.1	1028	WB5XX K1HLO DM23
210900	-18	0.4	1162	K3ZK WA0LJM EN27
210900	-19	-1.5	1658	KI4DLS AK5Q -05
210900	-10	0.1	1963	CQ N5KDV EM41 ~U.S.A.
----- 20m				
210915	-15	0.2	704	KI0IH N4LCH -17
210915	-11	0.1	922	K1GND KG7PQX DN40
210915	-14	0.1	1025	CQ WB5XX EM33 U.S.A.
210915	2	0.3	2070	TF3PPN WN4N EM80

Rx Frequency

UTC	dB	DT	Freq	Message
-----	----	----	------	---------

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

20m **S** **14.073 996**

Tx every
Tx 1051 Hz Rx
Rx 1051 Hz
 Hold Tx Freq

Az: 183 564 mi
Lookup Add Report 12
 Auto Seq Call 1st
 NA VHF Contest

2018 May 09
21:09:37

Generate Std Msgs

	Next	Now
N6NU WA9ONY CN85	<input type="radio"/>	Tx 1
N6NU WA9ONY +12	<input type="radio"/>	Tx 2
N6NU WA9ONY R+12	<input type="radio"/>	Tx 3
N6NU WA9ONY RRR	<input checked="" type="radio"/>	Tx 4
N6NU WA9ONY 73	<input type="radio"/>	Tx 5
CQ WA9ONY CN85	<input type="radio"/>	Tx 6

Receiving FT8 7/15 WD:30m

Band Activity Window

- UTC: Coordinated Universal Time
- dB: S/N in decibels
- DT: Delta Time
 - No decode for DT > ~ >2 sec.
- Freq: Frequency in Hz
- Message

Band Activity

UTC	dB	DT	Freq	Message
----- 20m				
182315	1	1.0	339 ~	CQ N6IQY CM99 U.S.A.
182315	-11	1.0	605 ~	CQ WB5DW EM30 ~U.S.A.
182315	12	0.2	739 ~	VA6MNT K7YVO CN85