

# How To Snare a Fox Using WSJT-X Fox & Hound (DXpedition Mode)



*(Plus a few DXing Tools)*

*-VE3ORY*

Many DXpeditions these days are taking advantage of the 'Fox and Hound' mode incorporated by Joe Taylor into WSJT-X (version 1.9 and later) to allow the DX entity to generate FT8 contacts at rates up to 500 /hour, greatly enhancing the chances of us 'Hounds' snaring a contact with the 'Fox'



## German DX Foundation - GDXF Mega DXpeditions Honor Roll

Home > Index German : English > Mega DXpeditions Honor Roll

### ZK3A - Tokelau Islands - 2019

Introduction | Honor Roll | by Year | by Prefix | DXCC Entities | QSO Totals per Entity | Continents | Single OP | World Records  
Top 20 Bands | Top 20 Modes | QSOs per Day | Most QSOs Single Day | Operators | Operators vs. countries | QSL Gallery | Needed



Operation: September 25, 2019 07:53 UTC - October 8, 2019 11:04 UTC, 13 days (315 hours total)

Operators: K6VHF K08SCA N7QT PY2NDX R7KW RW7K RX3APM SV2BFN UR0MC (Co-Leader) UR9QQ US0KW UT5UY (Co-Leader) UT8IO VE7NY VK3FY VK3GK WD5COV YT1AD (Team Leader) ZL3WW (19 operators)

QSOs:

Total QSOs	Uniques	Uniques %	QSOs/day	QSOs/hour
49,922	14,109	28.3 %	3,801	158

# What You Need to Know About Fox & Hound (F/H) Mode

## 1. Only DXpedition stations set up and operate as a 'FOX'

This from Joe Taylor...

“FT8 DXpedition mode is intended for use by rare-entity DXpeditions and other unusual circumstances in which sustained QSO rates well above 100/hour are expected. Do not use the multi-signal capability if you do not satisfy this requirement.”

## 2. The rest of us need to configure our WSJT-X FT8 mode as the 'Hound'

- More on this later...

## 3. DXpedition F/H operations are never conducted on any of the nominal FT8 frequencies

-This from Joe Taylor...

“DXpedition Mode must not be used in the conventional FT8 sub-bands. If you are contemplating operation as Fox in DXpedition Mode, find a suitable dial frequency consistent with regional band plans and publicize it for the operators you hope to work.”

#### **4. Some set up is required to configure WSJT-X for Fox & Hound mode**

- Not difficult but essential if you are to be successful... more on this later
- Remember also when you are finished with F/H mode, to change WSJT-X back to normal FT8 mode

#### **5. A few differences in operating the FT8 screen and waterfall in F/H mode**

- Also not difficult, but necessary in order to be successful in making a contact with the DXpedition

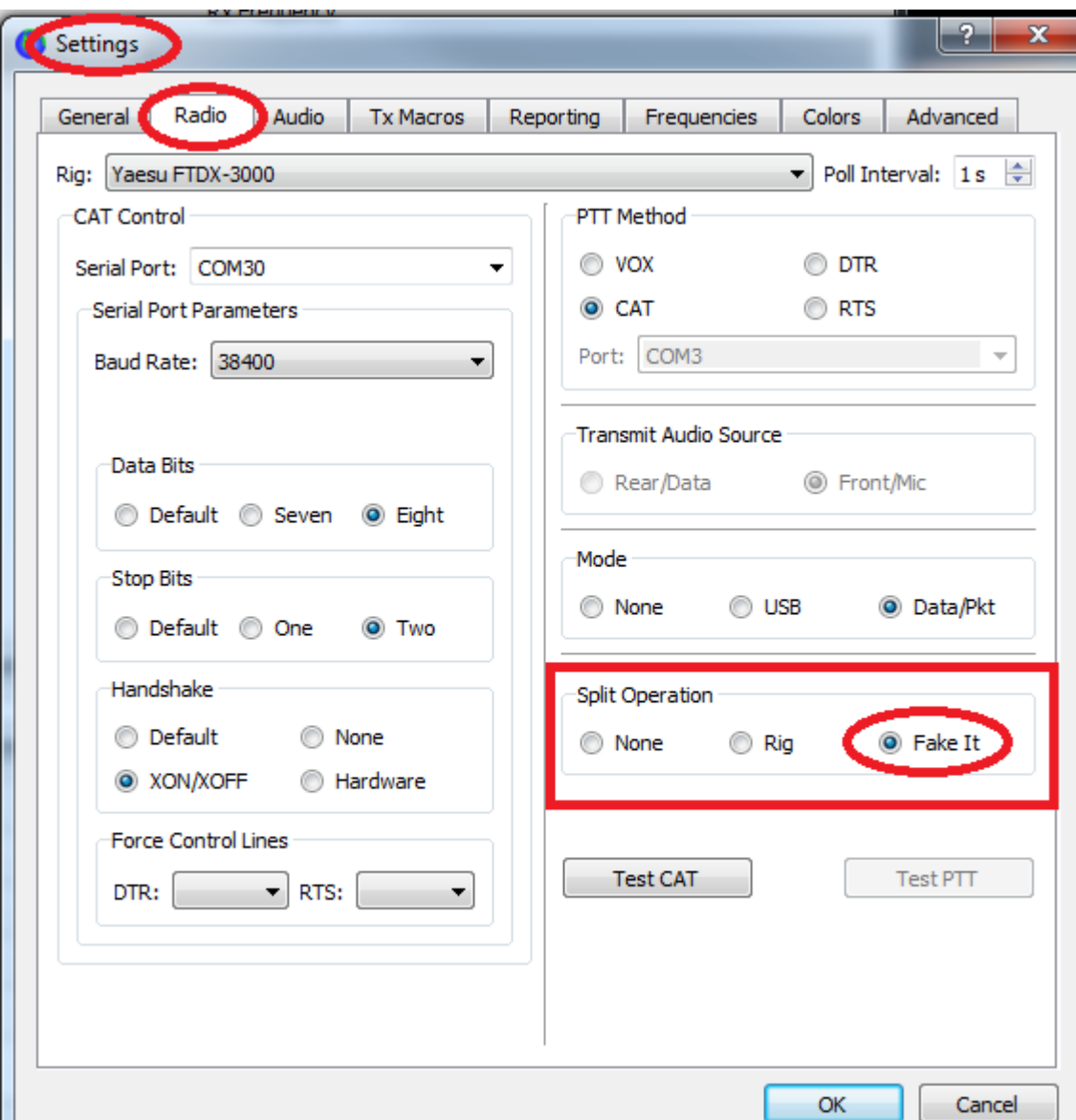
#### **6. Fox and Hound mode uses FT8 (not available for FT4) only, and requires WSJT-X Version 1.9.0 or later.**

- Latest General Availability (GA) release: *WSJT-X 2.5.4*

**Next 2 slides document the only changes that you need to make to enable 'Fox and Hound' mode in WSJT-X**

**This presumes that you already have WSJT-X set up and working for normal FT8 operation...**

To operate F/H mode, WSJT-X **must** be able to manipulate your radios frequency during a contact (referred to in WSJT-X settings as ‘Split Operation’)



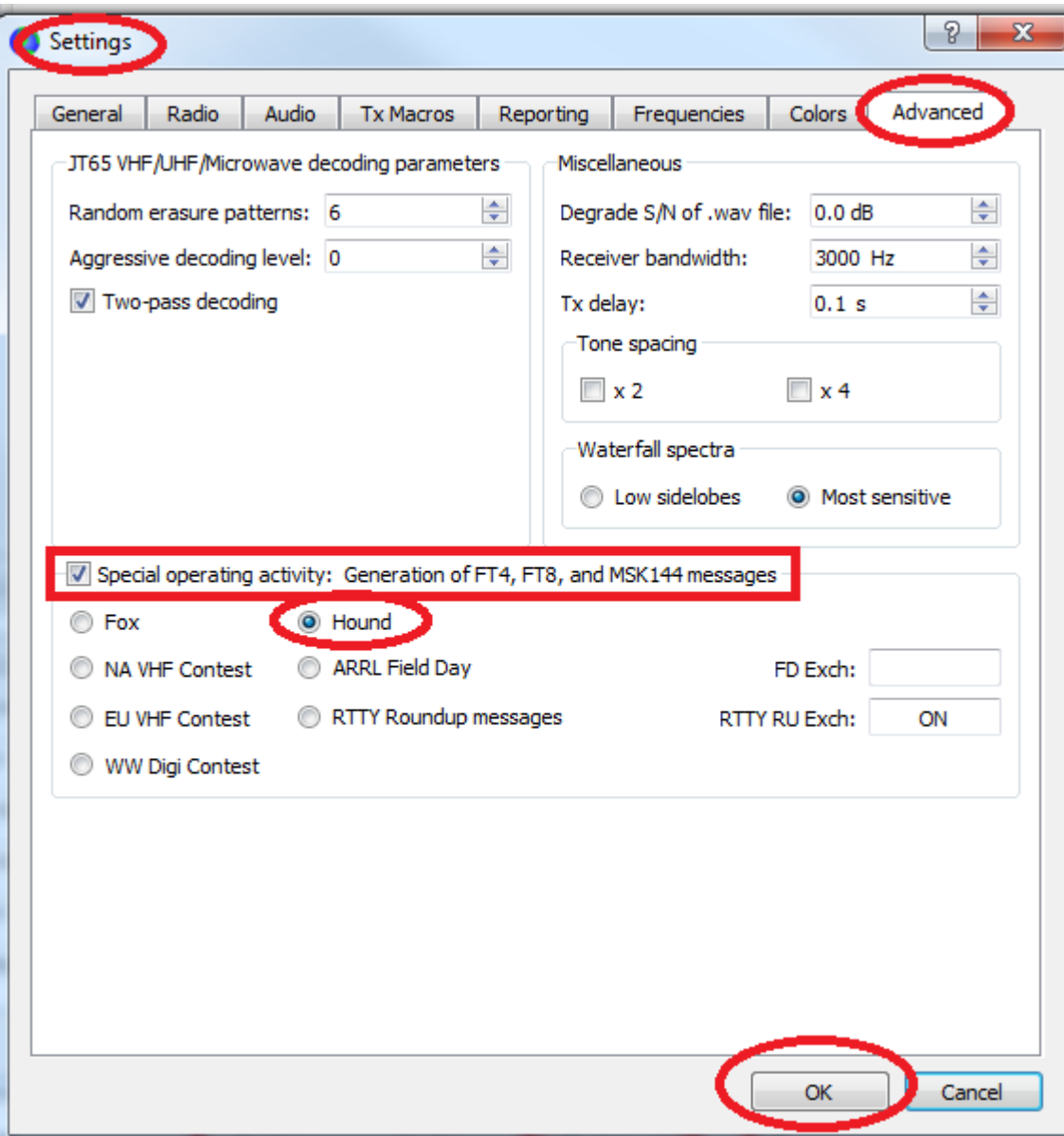
WSJT-X ‘Split Operation’ is designated by selecting either the ‘Rig’ or ‘Fake It’ option in the box as shown below.

You **must** enable one or the other to be able to work F/H mode.

I have CAT control configured and enabled between WSJT-X and my radio so I could use the ‘Rig’ option. However I find it just as easy to use the ‘Fake It’ option as shown here.

The ‘Fake It’ option will work just fine for F/H mode. Also, I have found no issues with leaving this setting enabled.

## WSJT-X Settings under the 'Advanced' tab to configure for 'Special operating activity'



1. Click the check box to enable 'Special operating activity'

2. Select 'Hound'

3. Click 'OK'

Remember when you are finished with F/H mode, to return WSJT-X setting to normal FT8 operation, by **un-checking** 'Special operating activity'

(More detail further on regarding details of conducting a F/H contact)

**- Next few slides give examples of some of the popular DX spotting web-sites available online.**

**- Great sources of information for DX activities in general. In spite of my being 'old school', I find myself using these aids to quickly find DX stations that I might wish to go after.**

**-These on-line web-sites apply to all modes of operation, and can be extremely helpful in pointing you to current DX activities in real time, and updating continuously.**

# NG3K 'Announced DX Operations'

- <https://www.ng3k.com/misc/adxo.html>

- Listings of current DXpeditions, as well as those pending, and when to expect them

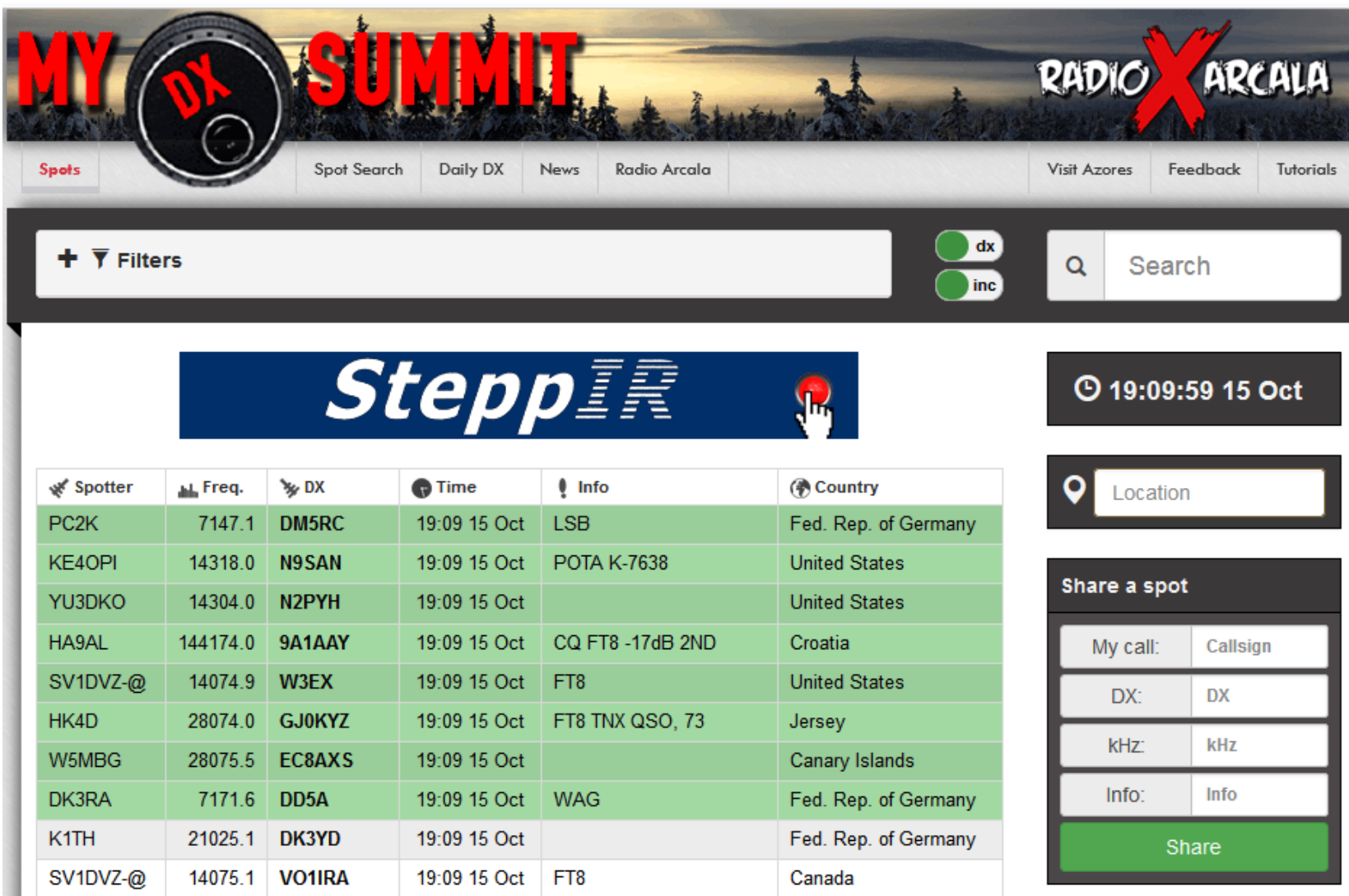
- Many of the listings provide links to individual expedition's own web-sites, as well as recent 'spots'

Start Date	End Date	DXCC Entity	Call	QSL via	Reported by	Info
<b>September</b>						
2022 Sep16	2022 Oct16	Chagos	<a href="#">VQ9SC</a> <small>(spots)</small>	WB2REM	WB2REM 20220826	By WB4GHY; 160-10m; FT8 (mainly f/h) SSB; spare time operation; to continue until Nov 6
2022 Sep19	2022 Oct19	Equatorial Guinea	<a href="#">3C3CA</a> <small>(spots)</small>	TA2OM	<a href="#">TDDX</a> 20220920	By TA2OM fm Malabo; HF; FT8 SSB; 100w; ground plane
<b>October</b>						
2022 Oct01	2022 Oct15	Marquesas	<a href="#">TX7G</a> <small>(spots)</small>	Auto QSL	<a href="#">DXW Net</a> 20220622	By F6BCW fm Hiva Oa; 80-10m; CW SSB, perhaps FT8 RTTY
2022 Oct02	2022 Oct15	Seychelles	<a href="#">S79</a> <small>(spots)</small>	LoTW	<a href="#">DXW Net</a> 20221003	By DL5RDO as S79/DL5RDO fm La Digue I; 40-10m; CW SSB; 100w; end-fed quarter wave wires; QSL via DL5RDO (B/d)
2022 Oct02	2022 Oct17	Maldives	<a href="#">8Q7TD</a> <small>(spots)</small>	IK1TTD (B/d)	IK1TTD 20220915	By IK1TTD fm Fasmendhoo I (IOTA AS-013); mainly 20m; end-fed wire, vertical; spare time operation
2022 Oct03	2022 Oct18	Albania	<a href="#">ZA</a> <small>(spots)</small>	OE6VCG	<a href="#">TDDX</a> 20220904	By OE6VCG as ZA/OE6VCG fm nr Shkodra; HF; FT8 FT4 JT65
2022 Oct05	2022 Oct17	Comoros	<a href="#">D60AE</a> <small>(spots)</small>	LoTW	<a href="#">DXNews</a> 20220506	By F4AJQ F1ULQ F2DX F4AZF F4ESV F5AGB F5NTZ F8AVK F8EFU F8GGV DL3GA HB9GWJ ON7RN EI5GM EI9FBB fm IOTA AF-007; 160-10m; CW SSB RTTY FT8 FT4 + QO-100 satellite; dedicated to F5NQL (SK); QSL via Club Log OQRS, F5GSJ



# 'My DX Summit' <http://www.dxsummit.fi/#/>

- Real-time 'Spotters' listings... continuously updated in real time
- Set filters to refine search criteria by band / mode / DX call sign
- Often 'Info' will show reference to **FT8 F/H** and the spotter will indicate the frequency being used by the DX station (valuable help in determining where to look)



The screenshot shows the My DX Summit website interface. At the top, there is a navigation bar with links for Spots, Spot Search, Daily DX, News, Radio Arcala, Visit Azores, Feedback, and Tutorials. Below the navigation bar is a search bar with a search icon and the text 'Search'. To the left of the search bar is a 'Filters' button with a plus sign and a dropdown arrow. Below the search bar is a large banner for 'SteppIR' with a hand icon pointing to a red location pin. To the right of the banner is a clock icon and the text '19:09:59 15 Oct'. Below the banner is a table of spot listings with columns for Spotter, Freq., DX, Time, Info, and Country. To the right of the table is a 'Location' search bar with a location pin icon. Below the location bar is a 'Share a spot' section with input fields for My call, DX, kHz, and Info, and a 'Share' button.

Spotter	Freq.	DX	Time	Info	Country
PC2K	7147.1	DM5RC	19:09 15 Oct	LSB	Fed. Rep. of Germany
KE4OPI	14318.0	N9SAN	19:09 15 Oct	POTA K-7638	United States
YU3DKO	14304.0	N2PYH	19:09 15 Oct		United States
HA9AL	144174.0	9A1AAAY	19:09 15 Oct	CQ FT8 -17dB 2ND	Croatia
SV1DVZ-@	14074.9	W3EX	19:09 15 Oct	FT8	United States
HK4D	28074.0	GJ0KYZ	19:09 15 Oct	FT8 TNX QSO, 73	Jersey
W5MBG	28075.5	EC8AXS	19:09 15 Oct		Canary Islands
DK3RA	7171.6	DD5A	19:09 15 Oct	WAG	Fed. Rep. of Germany
K1TH	21025.1	DK3YD	19:09 15 Oct		Fed. Rep. of Germany
SV1DVZ-@	14075.1	VO1IRA	19:09 15 Oct	FT8	Canada

# 'CLUBLOG' <https://clublog.org/about.php>

- Many DXpeditions now register with 'ClubLog' and use it to show 'Live Stream' contact information in real time.
- DX stations will periodically upload Log information. You can use this feature to see whether you are 'in the log'
- 'ClubLog' also links to 'OQRS' (the Online QSL Requests Service'). Many expeditions use OQRS to offer expedited issuance of QSL confirmation for a small fee.
- 'ClubLog' itself is a free service. There is no fee to register as a user.
- Many tools available on the 'ClubLog' web-site for tracking DX activities



Home | Settings | Upload | OQRS | Donate | Expeditions | Help

**Your Log** | **DX Spots for Needed DXCCs**

Using this tool, you can search the DX Cluster for spots related to DXCCs that you have not yet worked.

Choose your call: **VE3ORY**

Filter style: **New DXCCs**

Filter mode: **All modes**

**Run the Search**

SB7A	14096.6	Y09HP	rtty	ROMANIA LoTW
Mw0HMV	28075.2	PJ4RF	lo81ap<f2>fk52 f8 f8 sent	BONAIRE
WA7DUH	21109.9	N2HX		UNITED STATES OF AMERICA LoTW
K3NM	21050.0	TX7G	qsx 21051.10 cw	MARQUESAS ISLANDS LoTW Most-Wanted #62 LoTW
LY6C	14017.0	LY5AT		LITHUANIA LoTW
N8NJ	18068.5	T02DL		GUADELOUPE
W8FJ	14033.0	DK2GZ	cw	FEDERAL REPUBLIC OF GERMANY LoTW
N2PQJ	7250.0	WB2NFL	nyqp-suf	UNITED STATES OF AMERICA LoTW
DJ4QV	14259.5	K2XA	tnx wag	UNITED STATES OF AMERICA LoTW
PY1BL	50313.0	EA7/YL3G5	tnx new one on 6ml 73's	SPAIN
N5KB	14016.6	DL1DAN	cw	FEDERAL REPUBLIC OF GERMANY LoTW

**CLUBLOG** **KP2B** **18:35:19** **234726 QSOs** **Rate: 43 QSOs/hr**

Phone: 160 80 60 40 30 20 17 15 12 10 6 4 2 70  
 CW: [Progress bar]  
 Data: [Progress bar]

30: 2022-10-15 17:48:01 28.180 FT4 N2JHR  
 29: 2022-10-15 17:49:00 28.180 FT4 EA7AMP  
 28: 2022-10-15 17:51:00 28.180 FT4 DL6YDX  
 27: 2022-10-15 17:52:00 28.180 FT4 OZ5JLH  
 26: 2022-10-15 17:53:00 28.180 FT4 EA7JNT  
 25: 2022-10-15 17:54:00 28.180 FT4 EA5AML  
 24: 2022-10-15 17:55:00 28.180 FT4 EA8UU  
 23: 2022-10-15 17:56:00 28.180 FT4 N140  
 22: 2022-10-15 17:57:00 28.180 FT4 KG4BLR  
 21: 2022-10-15 17:58:00 28.180 FT4 W8RWN  
 20: 2022-10-15 18:03:00 28.180 FT4 EA1DWB  
 19: 2022-10-15 18:04:00 28.180 FT4 T23ATV  
 18: 2022-10-15 18:06:00 28.180 FT4 K85WBH  
 17: 2022-10-15 18:09:00 28.180 FT4 DL3HMD  
 16: 2022-10-15 18:11:00 28.180 FT4 DC8RA  
 15: 2022-10-15 18:12:00 28.180 FT4 K5VG  
 14: 2022-10-15 18:14:00 28.180 FT4 G16WHI  
 13: 2022-10-15 18:15:00 28.180 FT4 N1AI  
 12: 2022-10-15 18:16:00 28.180 FT4 G4PRJ  
 11: 2022-10-15 18:18:00 28.180 FT4 W8REY  
 10: 2022-10-15 18:22:00 28.180 FT4 N09HSY  
 09: 2022-10-15 18:23:00 28.180 FT4 W7WRJ  
 08: 2022-10-15 18:24:00 28.180 FT4 CE3VBK  
 07: 2022-10-15 18:25:00 28.180 FT4 N3KJJ  
 06: 2022-10-15 18:25:01 28.180 FT4 CE3VBK  
 05: 2022-10-15 18:26:00 28.180 FT4 N2EDU  
 04: 2022-10-15 18:27:00 28.180 FT4 N6GMA  
 03: 2022-10-15 18:30:00 28.180 FT4 O6GJCG  
 02: 2022-10-15 18:31:00 28.180 FT4 IQ3IW  
 01: 2022-10-15 18:32:00 28.180 FT4 N2YTF

First QSO: 2006-01-01 00:00 | Last QSO: < 10 mins | Map pins: 1000 Update rate: 1005 Heartbeat: 18:34:44

**Log Search** **DX Spots**

Live Stream by Club Log  
 Documentation | Wrong locator?

-Notice a couple of the 'spots' here indicating FT8 F/H  
-Notice also the **frequency 18.108** This is where you need to tune your radio, in order to set up for working them in F/H mode. (Normal FT8 frequency on 17m is 18.100) This information clearly indicates that they were operating F/H mode at the time of these 'spots'

**news.com**  
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# More than just DX News

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Main Page

## S9OK Sao Tome Island, Sao Tome and Principe

2021-11-22 19:06:26 26471 total, 9 today 45 ★★★★★ Leave a comment

S9OK Team will be active from Sao Tome Island, IOTA AF - 023, Sao Tome and Principe, 2 - 16 October 2021.  
Team - OK1BOA, OK1CRM, OK1FCJ, OK1GK, OK2ZA, OK2ZC, OK2ZI, OK6DJ.

Recent DX Spots [S9OK](#)

de	dx	freq	text	time
TA4RC	S9OK	1840	tnx lotw uploads	2022-04-15T13:32:02
JR6RRD	S9OK	1840	TKS LoTW,got new one!	2021-10-19T06:22:59
SP6CES	S9OK	3545	tnx QSL via LoTW	2021-10-19T04:04:21
K3JM	S9OK	14087		2021-10-18T23:47:49
K6ND-@	S9OK	14000	now on LoTW! Thanks	2021-10-18T16:54:21
OK6DJ	S9OK	14000	Team Home, TNX 73	2021-10-17T16:35:52
OK6AA-@	S9OK	123456	BEST OF THE BEST!!!	2021-10-17T08:46:58
HK4GSO-@	S9OK	14000	Tnx for the dxpediton. Great job!!!	2021-10-16T16:03:00
M0OXD-@	S9OK	14000	QRT TU Great effort!	2021-10-16T15:33:22
OK2EW	S9OK	21080	UP FT8	2021-10-16T13:48:10
SQ5AM-@	S9OK	18108	FT8 tnx4qso	2021-10-16T13:25:01
SQ5AM-@	S9OK	8		2021-10-16T13:24:30
SV1GRN-@	S9OK	18108	F/H	2021-10-16T13:16:31
F5BOY-@	S9OK	18108	FT8 F/H cq cq	2021-10-16T13:07:15
LA4LN	S9OK	21080	JP50JA<>JJ30HJ TU FT8 QSO	2021-10-16T13:07:01
LA4LN	S9OK	21074	JP50JA<>JJ30HJ TU FT8 QSO	2021-10-16T13:05:15
OK2LI	S9OK	21080	FT8 +13 diky ahøj 73!	2021-10-16T13:03:39
W7ZVY-@	S9OK	14000	RF5 558 558	2021-10-16T13:03:10

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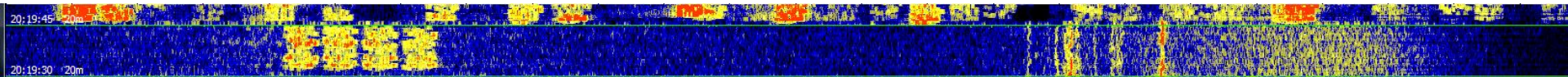
# So what happens during a Fox and Hound Contact?

## And how does it differ from Normal FT8?

Keep in mind that F/H mode benefits not only the DXpedition, but also those of us who are hunting for that rare contact.

- Joe Taylor's DXpedition mode allows the **FOX to transmit up to 5 signals simultaneously.**
- This multi-signal capability can achieve contact rates of **up to 500 QSOs/hour in ideal condx**
- One slight drawback of the FOX's multi-signal transmission is that his transmit power is divided evenly amongst number of signals being sent simultaneously.
- So far, I have seen as many as 4 simultaneous signals being transmitted by the FOX. In that case, each of those signals will be at 25% of his total output power.

Here is what that transmission looks like on the WSJT-X waterfall...



- In the above image you can see the 4 signals that are being transmitted by the FOX
- Note that while the FOX is transmitting, everyone else should be listening
- You can't see the frequency scale in this image, but the **FOX is always transmitting between 300 and 900 Hz on the waterfall.**
- **No one else transmits below 900 Hz on the waterfall, unless they have been answered by the FOX.**
- So **when calling the FOX, the 'Hounds' should always be above the 900 Hz frequency on the waterfall.**
- **You (the 'Hound') only move down below 900 Hz when the FOX responds to your call.** This happens **automatically**, and is the reason why WSJT-X needs to be able to shift your frequency down to match the FOX's den (below 900 Hz) while you are in contact with him.

# Typical Sequence of Events for making a F/H Contact

## Getting Started and Calling the FOX

1. You discover a DXpedition operating in F/H mode that you would like to contact
2. Using available means you determine what frequency they are currently operating at
3. Configure WSJT-X settings for FT8 'Special operating activity' as the '**Hound**'
4. With WSJT-X running, tune around until you find the F/H activity (Here is clew...use DX 'spotter's reports to identify where to start , and look for extensive FT8 around that frequency). Note that the F/H activity will not be on the normal operating FT8 frequency for that band.
5. If you so choose, WSJT-X allows you to edit the 'Working Frequencies' table. So you could create an entry for a particular F/H operating frequency in that table, and it will then appear in the drop-down frequency list on your FT8 window. (Frequently, I simply tune my radio manually to the F/H frequency, rather than altering the existing table)
6. Note that it is important ,when setting your radio, dial that you position it such that the **FOX transmissions are seen to be below the 900 Hz mark on your waterfall**. And while trying to call the FOX, you **must be above that 900 Hz spot**. I usually try to find a clear space amongst all of the other callers somewhere between 1000 – 3000 Hz on my waterfall.  
**NOTE:** The reason that this is so important is that **WSJT-X is programmed such that the FOX will automatically NOT respond to Hounds initially calling him below 1000 Hz .** Failing to comply with this operating protocol will guarantee that you will not be successful in achieving a contact.
7. This also brings up another crucial point...remember the old adage that "you cannot work them, if you can't hear them". If you are not able to see and successfully decode the FOX's transmissions, you are not going to be able to make the contact. **So in that situation, there is no point in trying to call them!** In that case you need to wait for better conditions, or try another day, or look for them on a different band.

- When you configure your WSJT-X settings to operate as the 'Hound' it will automatically set you up for transmitting during the 'ODD' time periods. And the FOX will always be transmitting on 'EVEN' time slots.
- Enter the DX stations call in the window on your FT8 screen. You can either enter this manually or simply double click on one of the DX stations transmissions and it will populate his call (and start calling him).
- After positioning yourself at an appropriate spot on the waterfall, double click on one of the DX stations transmissions or click 'Enable TX' to start calling the FOX.

The screenshot shows the WSJT-X v2.3.1 software interface. The main window is titled "Band Activity" and displays two columns of station data. The left column shows received stations, and the right column shows stations being transmitted to. The "FT8" mode is selected, and the current frequency is 10.130 999 MHz. The interface includes a "Generate Std Msgs" window with a list of call signs and a "Waterfall" display at the bottom showing frequency over time.

Band Activity				Rx Frequency					
UTC	dB	DT	Freq	Message	UTC	dB	DT	Freq	Message
30m									
103630	-13	0.4	564	~ WP4G TXSN -02	103345	-11	-0.1	565	~ TXSN NO1V EL88
103630	-9	0.4	504	~ VK4CH RR73; BH4CAC <TXSN> -08	103415	-14	-0.1	565	~ TXSN NO1V EL88
103630	-13	0.4	624	~ NW9H TXSN -08	103430	-11	0.4	564	~ BH4QYX TXSN -04
30m									
103700	-6	0.4	564	~ WP4G RR73; BH8PHG <TXSN> -12	103451	Tx	1701	~ TXSN VE30RY FN14	
103700	-4	0.4	504	~ NW9H RR73; BH4CAC <TXSN> -08	103500	-11	0.4	564	~ VE3RZ RR73; BH4SPN <TXSN> -06
30m									
103730	-7	0.4	564	~ BH4SPN TXSN +00	103515	Tx	1701	~ TXSN VE30RY FN14	
103730	-5	0.4	504	~ BH8PHG RR73; UA0SDX <TXSN> -14	103530	-9	0.4	564	~ VK4CH TXSN -04
30m									
103800	-6	0.4	564	~ UA0SDX TXSN RR73	103545	Tx	1701	~ TXSN VE30RY FN14	
103800	-4	0.4	504	~ BH4SPN RR73; BH4IGO <TXSN> -04	103600	-7	0.4	564	~ BH4CAC TXSN -08
30m									
103830	-12	0.4	564	~ VE30RY TXSN -11	103615	Tx	1701	~ TXSN VE30RY FN14	
103830	-9	0.4	504	~ BH4SPN RR73; BH4IGO <TXSN> -04	103630	-13	0.4	564	~ WP4G TXSN -02
103830	-14	0.4	625	~ R0SR TXSN +11	103645	Tx	1701	~ TXSN VE30RY FN14	
30m									
103900	-10	0.4	564	~ VE30RY RR73; AA1ON <TXSN> -12	103700	-6	0.4	564	~ WP4G RR73; BH8PHG <TXSN> -12
103900	-6	0.4	504	~ R0SR RR73; BH4IGO <TXSN> -04	103715	Tx	1701	~ TXSN VE30RY FN14	
103900	-13	0.4	624	~ BH4SPN TXSN RR73	103730	-7	0.4	564	~ BH4SPN TXSN +00
30m									
103900	-10	0.4	564	~ VE30RY RR73; AA1ON <TXSN> -12	103745	Tx	1701	~ TXSN VE30RY FN14	
103900	-6	0.4	504	~ R0SR RR73; BH4IGO <TXSN> -04	103800	-6	0.4	564	~ UA0SDX TXSN RR73
103900	-13	0.4	624	~ BH4SPN TXSN RR73	103815	Tx	1701	~ TXSN VE30RY FN14	
30m									
103900	-10	0.4	564	~ VE30RY RR73; AA1ON <TXSN> -12	103830	-12	0.4	564	~ VE30RY TXSN -11
103900	-6	0.4	504	~ R0SR RR73; BH4IGO <TXSN> -04	103845	Tx	564	~ TXSN VE30RY R-12	
103900	-13	0.4	624	~ BH4SPN TXSN RR73	103900	-10	0.4	564	~ VE30RY RR73; AA1ON <TXSN> -12

## But the Dxpedition is not coming back to me ☹️

1. Keep calling the DX station and watch for a response.
  - Even though they are answering multiple stations at a time, the DX station can be generating huge pile-ups ( and FT8 is pretty good at separating overlapping QRM)
  - I've had occasions where I got a response and completed the contact almost immediately. And others like the current expedition by TY0RU which took me over an hour of calling him before I got a response.
2. You will notice that, by design, after 2 minutes of calling your WSJT-X program will time out, and stop sending. ..your 'Enable Tx' button will be grayed out. Joe Taylor has built this in to avoid un-attended operation.
  - I often find it handy to take advantage of this period and watch the waterfall segment where I have been transmitting, to see if it is still relatively clear
  - If there is another strong station operating on top of me, I will look for a clearer slot on the waterfall and move my TX position to that (position your cursor over the spot that you wish to move to and then **Shift+Click** to move your TX frequency only)
  - You can leave your receive frequency anywhere you like on the waterfall. If you get a response from the DX station, both your TX and RX will **automatically** jump down to a position around 300 KHz for your next transmission to the FOX.
3. Re-enable calling the FOX for another 2 minutes, by clicking again on the 'Enable Tx' button
4. Watch carefully for a reply from the FOX. When it happens, it will occur quickly and you may see him responding to both your call and someone else's in the same transmission. If you have exchanged signal reports and got a RR73 from the FOX, then you have worked him! (more on this next slide)
5. Be aware also that, in order to help level the playing field, the FOX can set a dB signal level **above which he will automatically NOT respond to that 'Hound'**. So don't give up because you think you can't compete. Keep trying for a while! (Unless your wife is calling you for dinner, or to cut the grass)

## When the FOX Responds to Your Call 😊 😊

1. The exciting part is when the FOX eventually responds to your call. **His first transmission to you will be your signal report from him.**
2. This triggers an automatic response in WSJT-X that will **shift your operating frequency down to the same frequency where the FOX just called you ...nominally somewhere in the range between 300-540 Hz, and your station will send R+His Signal Report**
3. If the FOX does not successfully receive your first report, he will repeat yours, and **your subsequent report to him will automatically be shifted 300 Hz up or down from where it was first sent.**
4. After the FOX receives his signal report from you, his next transmission to you will be 'RR73'. Once you receive this from him, your contact is complete.

Note: that if your station fails to decode the FOX's 'RR73' yours will again try to send his signal report **up to 3 times**, and the **FOX will try to send 'RR73'... also up to 3 times**. Once you receive the FOX's 'RR73' the QSO is complete, and you just worked a DXpedition (the Hound does not send a 73 transmission...the FOX is done with you, and will move on to other 'Hounds' at this point).

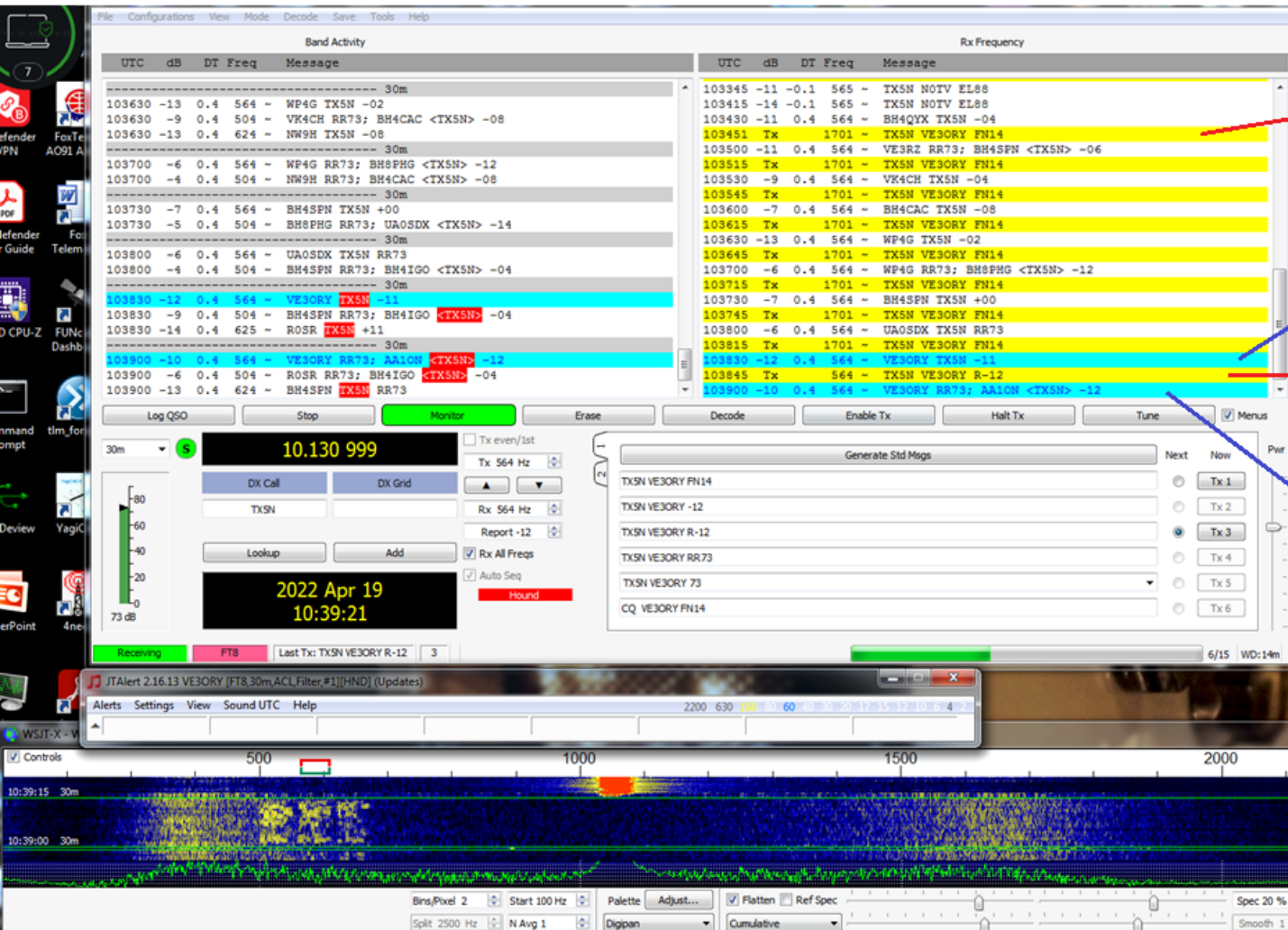
**The next few slides will attempt to show real examples of a Fox & Hound contact.**



# A typical F/H contact. This one with TX5N Austral Islands DXpedition, April 2022

This may appear a little complicated, but really it is not. Once you have it set up. WSJT-X does the rest for you.

Note that with my color configuration, my **outgoing transmissions** are in **Yellow** background. **Received messages** to my call sign are in **Blue**.



My station is positioned at 1701 Hz on the waterfall and calling TX5N, during each 'ODD' time period.

Here I get a response and my signal report from TX5N.

Note that my next transmission (my signal report to him) is shifted down to TX5N's frequency at 564 Hz.

His final transmission to me is his 'RR73', and he is simultaneously sending a signal report to AA1ON. At this point, my QSO with TX5N is complete (my station does NOT send a 73 msg).

The whole contact is complete in 45 seconds, and I just worked the Austral Islands DXpedition 😊

You can see TX5N three simultaneous transmissions here on the waterfall at 504, 564, and 624 Hz (spaced 60 Hz apart) being sent each 'Even' period.

# Another F/H contact with JW0X Svalbard DXpedition - April 2022

The screenshot displays the WSJT-X v2.3.1 interface. The main window is titled "Band Activity" and "Rx Frequency". The "Band Activity" table shows a list of received signals, including several from JW0X Svalbard DXpedition. The "Rx Frequency" table shows transmitted signals, including a contact with VE3ORY FN14.

UTC	dB	DT	Freq	Message
220515	2	0.1	1751	~ JW0X EA5U IM98
220515	-6	0.1	1872	~ JW0X I28DFO JN71
220515	-6	-0.2	1133	~ JW0X PA9M JO32
220515	-11	-0.1	2309	~ JW0X OM3LU JN88
220515	-19	1.0	1944	~ JW0X LU2EM GF05
----- 20m -----				
220530	2	0.0	1632	~ JW0X XE1EE DL90
220530	-10	0.2	555	~ PA9M JW0X -06
220530	-10	0.2	615	~ YO5LD JW0X -24
220530	-10	0.2	495	~ SP3KW RR73; LU2EM <JW0X> -08
----- 20m -----				
220545	2	0.1	1751	~ JW0X EA5U IM98
220545	-4	0.1	659	~ JW0X EA1BB -14
220545	-4	0.1	1873	~ JW0X I28DFO JN71
220545	-6	0.1	2309	~ JW0X OM3LU JN88
220545	-15	1.0	1944	~ JW0X LU2EM GF05
220545	-10	-0.2	1133	~ JW0X PA9M R-17
----- 20m -----				
220600	3	-0.0	1632	~ JW0X XE1EE DL90
220600	-6	0.2	495	~ PA9M RR73; LU2EM <JW0X> -08
220600	-6	0.2	555	~ YO5LD JW0X -24

UTC	dB	DT	Freq	Message
220045	Tx		1821	~ JW0X VE3ORY FN14
220115	Tx		1821	~ JW0X VE3ORY FN14
220130	-10	0.3	554	~ VE3ORY JW0X -06
220145	Tx		554	~ JW0X VE3ORY R-10
220200	-8	0.3	556	~ VE3ORY JW0X RR73
220218	Tx		854	~ JW0X VE3ORY R-10

The interface also shows a frequency display of 14.090 000 MHz, a DX Call of JW0X, and a DX Grid. The date and time are 2022 Apr 24 22:06:19. The status bar indicates "Receiving" and "FT8" mode. The "Alerts" window shows a signal at 2200 630 160 Hz.

Like many current DXpeditions JW0X Svalbard expedition was also registered with Club Log.

Provided they have internet access, the expedition will usually try to upload Log data frequently. This becomes a great way to check that your contact was recorded in their Log.

As indicated here in Club Log, the JW0X Dxpediton was not registered with the OQRS (QSL service). To apply for their QSL card required going through a QSL manager...worth the expense though, as I received a very nice card from the expedition.



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Settings

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Your Log

DXCC Charts

Satellite Charts

Timelines

Grid Squares

QSL Charts

Zone Charts

Log Inspector

Log Matching

League Tables

DXCC Leagues

Satellite Leagues

Zone Leagues

Club Leagues

CDXC Challenges

Super League

## Log Search

This form allows you to check if you are "in the log". It only works for registered Club Log users and expeditions that have uploaded their logs. This service has been heavily optimised for large and/or popular logs.

Log to search:	JW0X
32,223 QSOs logged between 2022-04-19 16:51Z and 2022-04-25 12:01Z	
Callsign to check:	<input type="text" value="VE3ORY"/>

Show contacts

Band	CW	FT8
20		1
17	1	1

Note: JW0X is also using the [Club Log expedition charts](#)

You cannot order a card via OQRS. This functionality has not been enabled by the holder of the callsign at present.

You can link to this page (no login required): <https://clublog.org/logsearch/JW0X>

[Embed this tool in your own web site](#)

## [Recent New Twist and Another Software Program for Expeditions Running FT8](#)

**'MSHV' by LZ2HV**     <https://lz2hv.org/mshv>

**It is difficult to keep up with all of the advances, and developments that have evolved from Joe Taylor's open source / weak signal mode**

**I'm a little reluctant to include with this presentation, however this new software program written by LZ2HV claims to accommodate stations calling in either WSJT-X Fox and Hound mode, or using the normal FT8.**

**This has potential to create significant confusion, unless folks are aware that the DXpedition is running the MSHV software. Remember that with DXpeditions who are running WSJT-X Fox and Hound mode, you will not be able to contact them if your station is configured for normal FT8 operation.**

**However, I figured it necessary to provide some information on this, since the current TY0RU Benin expedition is using the MSHV software. I just worked them with my station configured for WSJT-X 'Fox and Hound' mode.**

**And this explains a few anomalies noticed while making that contact.**

**So here we go with another twist...**

## **TY0RU Benin DXpedition - FT8 Operation While They are Using MSHV Software**

**At the time of making the contact with TY0RU, I was not aware that they were running MSHV. My station was configured for WSJT-X 'Fox and Hound', and in spite of this I was able to complete a contact with them.**

**Kind of surprising though, in that it took me an hour to get through. I'm not sure whether this something related to their MSHV software or rather simply due to the enormous pile-up that they were generating.**

**And interestingly enough Tim VA3TIC jumped in and worked them almost immediately and coincidentally at the same time that I completed my contact. So clearly the MSHV software works the way the author claims.**

**If I had done sufficient research in advance, I'd have found reference to the fact that they were likely using the MSHV software. QRZ.com had posted this note from the TY0RU expedition...**

**Note on the next slide some useful information on the QRZ website regarding this expedition including reference to using the MSHV software, the intended frequencies for FT8 operation and a reminder that these are not the usual FT8 sub-bands.**

**Also QSL information advising that the expedition will upload log information to Club Log, OQRS, and LoTW. – all handy stuff to know if you want to confirm a contact with Benin.**

## Russian DXpedition Team (RUDXT)

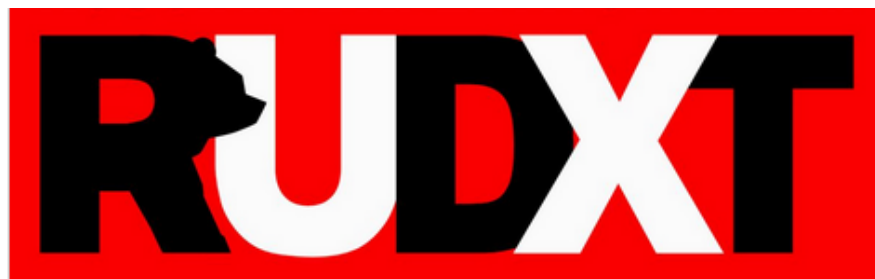
\*

Cotonou

Benin

QSL: Club Log OQRS, LoTW

Email: [rv6ali@yandex.ru](mailto:rv6ali@yandex.ru)



Page managed by [R7AL](#) Lookups: 33200

[Label](#)

[Biography](#)

[Detail](#)

[Logbook](#)

[Log a NEW contact with TY0RU...](#)

## TY0RU Benin 2022

### WEBSITE

#### How to work us in FT8

1) First few days of the DXpedition, when we are expecting a big number of callers, we'll QRV on these frequencies:

1836.0; 3567.0; 7056.0; 10131.0; 14095.0; 18095.0; 21095.0; 24911.0; 28095. (This is not the main FT8 sub-bands)

2) If not too many callers, we'll QSY to usual FT8 sub-band.

3) In both cases our software is MSHV. You can use both F/H or Normal mode - MSHV will "understand" any callers.

Note, that most of the time our software is configured to not make a dupes on same band. Please, check the online logs!

Contact with TY0RU while they were running MSHV software. Notice their 4 simultaneous transmissions below 900Hz on the waterfall. Also at start of the next 'ODD' period, you can see callers down below their operating frequencies. Not knowing that they were running MSHV, I assumed at the time that these stations must have simply been uninformed about F/H operation. I would now recognize this as another clue, indicating that MSHV was being used by the expedition.

The screenshot displays the WSJT-X software interface. At the top, there are two tables: 'Band Activity' and 'Rx Frequency'. The 'Band Activity' table shows a list of stations and their frequencies, with several entries highlighted in red and blue. The 'Rx Frequency' table shows a list of stations and their frequencies, with several entries highlighted in yellow and blue. Below these tables are various control buttons like 'Log QSO', 'Stop', 'Monitor', 'Erase', 'Decode', 'Enable Tx', 'Halt Tx', and 'Tune'. In the center, there is a large red display showing the frequency '14.095 269' and a digital display showing the date and time '2022 Oct 14 20:19:51'. To the right, there is a 'Generate Std Msgs' section with a list of messages and a 'Next' button. At the bottom, there is a waterfall plot showing frequency over time, with a red line indicating the current frequency. The plot shows several simultaneous transmissions below 900Hz.

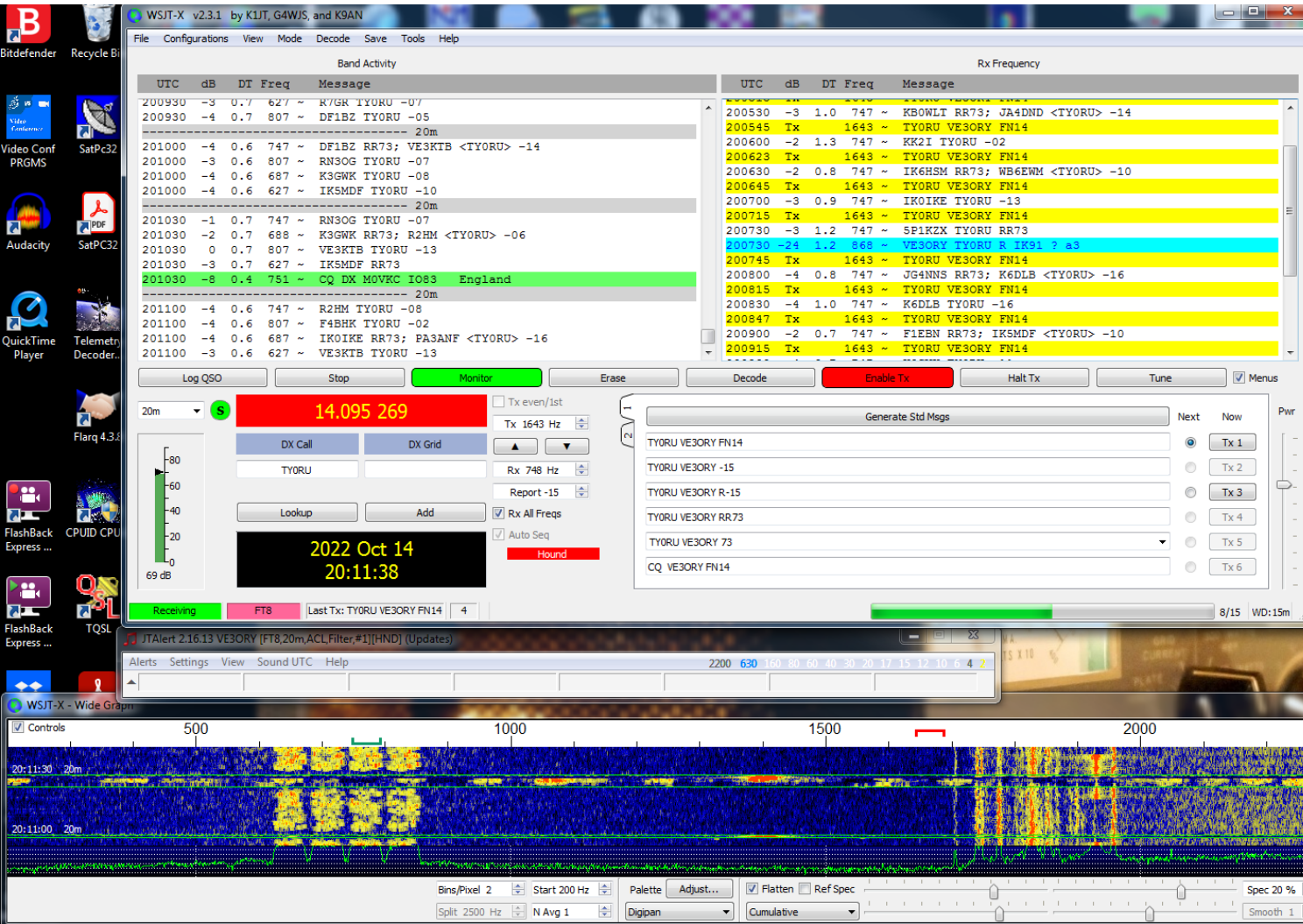
UTC	dB	DI	Freq	Message
201800	-2	1.0	807	~ VA3TIC TY0RU -05
201800	0	1.0	687	~ EC5A RR73; RX6AM <TY0RU> -08
201800	0	1.0	627	~ SP2CHY RR73; YO3TN <TY0RU> -10
----- 20m -----				
201830	-1	0.7	746	~ RX6AM RR73; KE3ZT <TY0RU> -08
201830	-2	0.7	806	~ W4UM RR73; IZ0FWD <TY0RU> -10
201830	-1	0.7	687	~ YO3TN RR73; CT1EWX <TY0RU> -08
201830	0	0.7	627	~ VA3TIC TY0RU -03
----- 20m -----				
201900	-2	0.7	746	~ KE3ZT TY0RU -10
201900	-2	0.7	807	~ IZ0FWD TY0RU -12
201900	-1	0.7	687	~ CT1EWX RR73; WA4PVI <TY0RU> +04
201900	0	0.7	627	~ VA3TIC RR73; VE3ORY <TY0RU> -08
----- 20m -----				
201930	-2	1.1	746	~ VE3ORY RR73; K7XB <TY0RU> -08
201930	-3	1.1	806	~ WA4PVI TY0RU +05
201930	-1	1.1	687	~ IZ0FWD RR73; W3FOX <TY0RU> +00
201930	-1	1.1	627	~ KE3ZT RR73; VE3KTB <TY0RU> -12

UTC	dB	DI	Freq	Message
201715	Tx		1118	~ TY0RU VE3ORY FN14
201730	-2	0.8	746	~ RY7A RR73; EC5A <TY0RU> -04
201745	Tx		1118	~ TY0RU VE3ORY FN14
201800	-1	1.0	747	~ JJ2RCJ RR73; W4UM <TY0RU> +12
201815	Tx		1118	~ TY0RU VE3ORY FN14
201830	-1	0.7	746	~ RX6AM RR73; KE3ZT <TY0RU> -08
201845	Tx		1118	~ TY0RU VE3ORY FN14
201900	-2	0.7	746	~ KE3ZT TY0RU -10
201915	Tx		627	~ TY0RU VE3ORY R+00
201930	-2	1.1	746	~ VE3ORY RR73; K7XB <TY0RU> -08

## Anomalies and Other Annoyances

Twice while trying to work TY0RU, I received strange message lines containing WSJT-X error codes, indicating uncertainty regarding valid decodes...always a little disconcerting and even more so when trying to work a rare DX station.

At times 'spotters' will also flag questionable operating activity indicating possible bogus contacts from stations masquerading as a DX station. Things like this can leave you wondering whether you actually made a valid contact.



The decoded line here, seemingly from TY0RU directed to me but showing a WSJT-X error code?

Also very strange received signal strength for this particular decode at -24 dB, when all other transmissions from TY0RU are indicating strong signals.

I have no idea as to how this decode may have originated.

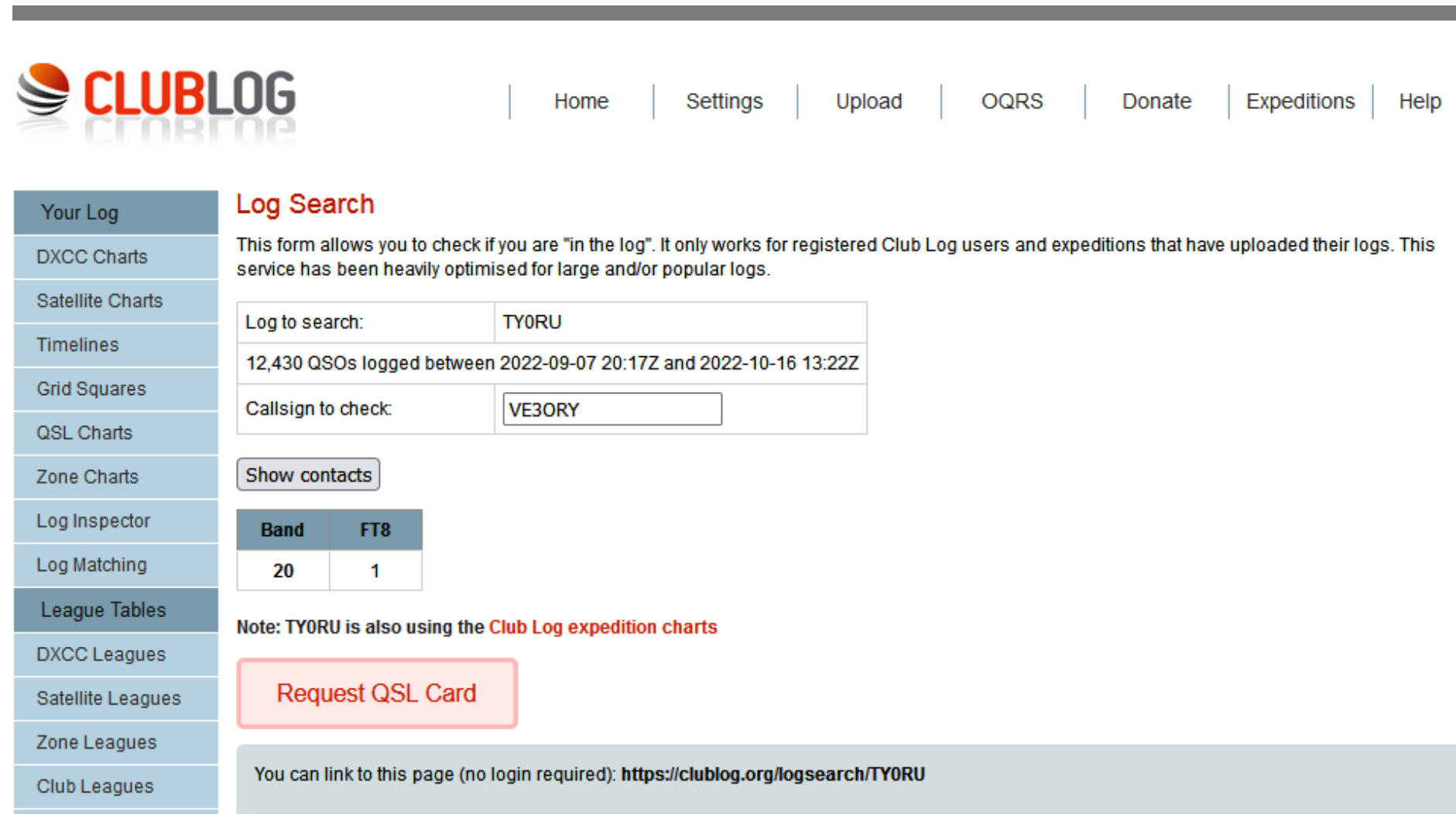
But at the time, it left me wondering whether I was going to make a legitimate contact with TY0RU.

Note also a CQ being sent by MOVKC in England right on top of the TY0RU frequency. Always challenges to making a successful DX contact.



However once again, a 'Log Search' in Club Log comes through... indicating that TY0RU have confirmed my contact as being in their Log. I love this feature in Club Log.

Now I just need to decide whether or not I am willing to pay a Russian DX team for their QSL card for the Benin DXpedition.



The image shows a screenshot of the Club Log website. At the top left is the Club Log logo. A navigation menu includes Home, Settings, Upload, OQRS, Donate, Expeditions, and Help. On the left is a sidebar with menu items: Your Log, DXCC Charts, Satellite Charts, Timelines, Grid Squares, QSL Charts, Zone Charts, Log Inspector, Log Matching, League Tables, DXCC Leagues, Satellite Leagues, Zone Leagues, and Club Leagues. The main content area is titled 'Log Search' and contains a search form for 'TY0RU' with 12,430 QSOs found between 2022-09-07 and 2022-10-16. A 'Show contacts' button is present, along with a small table showing 20 bands and 1 FT8 contact. A 'Request QSL Card' button is highlighted in red. At the bottom, a link is provided to access the search results without a login.

**CLUBLOG**

Home | Settings | Upload | OQRS | Donate | Expeditions | Help

**Your Log**

**Log Search**

This form allows you to check if you are "in the log". It only works for registered Club Log users and expeditions that have uploaded their logs. This service has been heavily optimised for large and/or popular logs.

Log to search: TY0RU

12,430 QSOs logged between 2022-09-07 20:17Z and 2022-10-16 13:22Z

Callsign to check: VE3ORY

Show contacts

Band	FT8
20	1

Note: TY0RU is also using the **Club Log expedition charts**

**Request QSL Card**

You can link to this page (no login required): <https://clublog.org/logsearch/TY0RU>