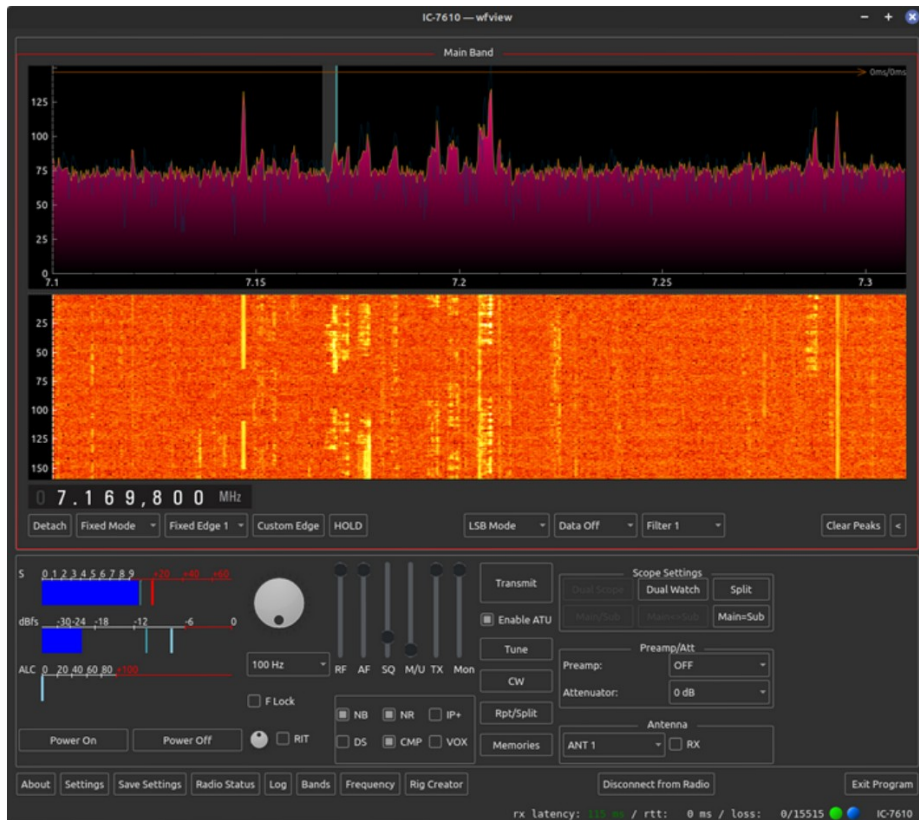


Rig Control – Remote View with/ Wfview KC3YFZ



Server and Client Setup Guide
Network Router setup.

Video:

<https://youtu.be/tu0UldYJnuQ?si=wuHli6Q2zAcF6lg9>

Rig Control – Remote View

WHY?

Students can use rig remote for view only

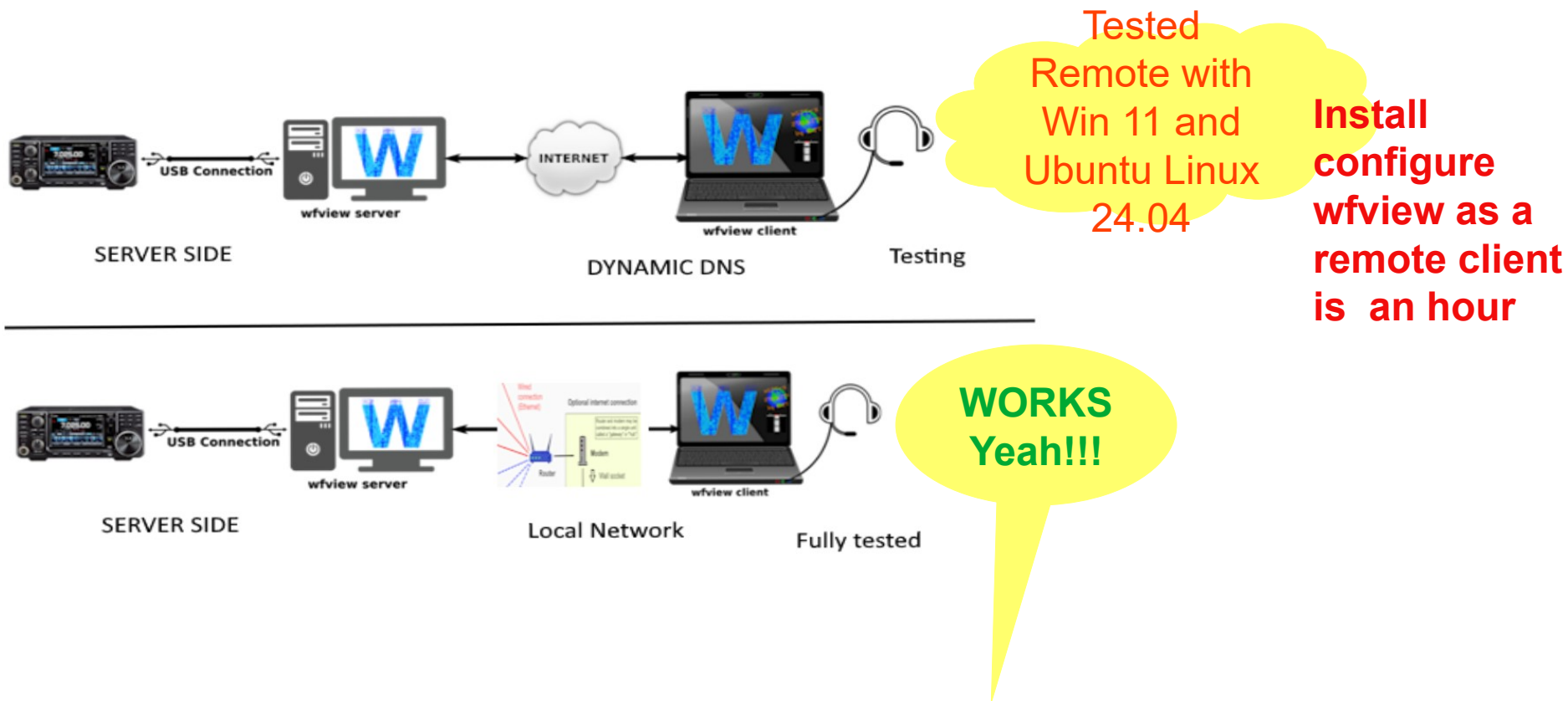
Use a large screen at seminars

Reduce hardware to move

Test concept for others to use a rig remotely

Have the radio room separate from your rig control.

SUMMARY Test Scenarios

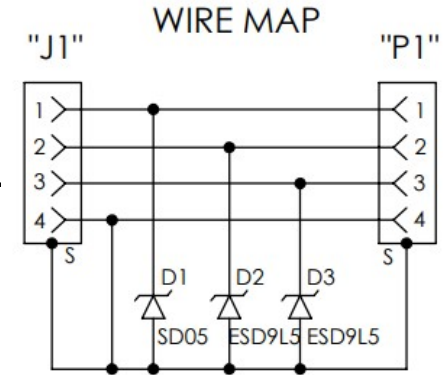


WFVIEW Product Test

- **Test:** ICOM IC7300, A local Win 11 WFVIEW Server, a local Win 11 to same network, Client WFVIEW
- **Network:** Dynamic Vs Static IP. Port Forwarding, Using Dynamic DNS as alternative to a Static 120\$ fee
- **WFVIEW:** Free Supports Kenwood & Icom.

Requirements

- Rig control SSB voice
- Security, granular control. 1-view no control, Mid range control and Full Control
- **Lightning arrest** on USB and other joined cables from rig and Server. 25 KVA. Add Insurance
- Logs to help diagnose
- Forums and Support
- Remote Control (Wfserver to Rig) (Wfserver Client on same network)
- PING, PORT Diagnostics via tools



SD05 <https://www.semtech.com/products/circuit-protection/esd-protection/sd05>

TESTS FOR Dynamic DNS

rubber meets the road

- FIOS Config at home Router
 - Setup Port Forward
 - Setup a static IP on the WFSERVER (xxx.xxx.xxx.207)
 - 3 Ports 50001, 50002, 50003
 - Logs will help to diagnose at WFVIEW

TESTS FOR Dynamic DNS

Advanced : Port Forward rule wfview server ip

wfview	50001	Both	[REDACTED]207	50001	Always
wfview	50002	Both	[REDACTED]207	50002	Always
wfview	50003	Both	[REDACTED]207	50003	Always

Log>> INF udp: UDP Stream bound to local port: 56507 remote port: 50001

Got Radio 0

2025-09-11 20:59:37.775 INF udp: Find available local ports

2025-09-11 20:59:37.777 INF default: Received serial port baud rate from remote server: 115200

2025-09-11 20:59:37.777 INF default: Changing queue interval to 100 ms

2025-09-11 20:59:37.777 INF system: Delay command interval timing: 100 ms

2025-09-11 20:59:37.779 INF udp: Starting udpCivData

2025-09-11 20:59:37.779 INF udp: UDP Stream bound to local port: 56508 remote port: 50002

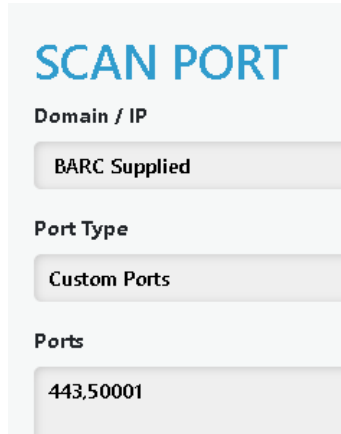
2025-09-11 20:59:37.779 INF udp: Starting udpAudio

2025-09-11 20:59:37.779 INF udp: UDP Stream bound to local port: 56509 remote port: 50003

Tests part 1

- The test using browser will give you warnings that it is not HTTPS. Ignore.
- Test 1 – (browser) check xxxx.myddns.me xxxx BARC wil tell you.
 - If test works Fios Router photo and Login appears
- Test 2 – (browser) check dynamic IP. Xxx.xxx.xxx.xxx BARC will tell you.
 - If test works Fios Router photo and Login appears

Tests Part 2



SCAN PORT

Domain / IP

BARC Supplied

Port Type

Custom Ports

Ports

443,50001

- Test 3 – (browser) Use <https://dnschecker.org/port-scanner.php> . In Domain/IP replace with BARC supplied dynamic ip. In the port window 443, 50001
- The Result: Port 443 should be OPEN
- PORT 50001 will be closed/timed out if the WFSERVER is not up. Normal.
- PORT 50001 will be open when th WFSERVER is up. Requires 15 to 30 mins to perform the test of remote. Coordinated by CELL

Title	Port	Result
Custom Port # 1	443	Open
Custom Port # 2	5001	Timed-Out

Test part 3

- Test 4 -Ping
 - <https://dnschecker.org/ping-ipv4.php>
- Ping the Barc supplied dynamic DNS name
 - Result to pass – Server IP display, and ping pass
- Ping the Barc supplied dynamic IP
 - Result to pass – Server IP display, and ping pass

WFVIEW TEST

- Requires WFVIEW

manual - <https://wfview.org/wfview-user-manual/>

- Testing Win 11 Server and Client only need client.
 - **wfview** Open Source interface for Icom and Kenwood transceivers
 - Download – (Win, Mac, Linux) Windows test is preferred for phase 1 test. Phase 2 linux as client completed. Phase 3 Mac

WFVIEW Settings

- Follow quick start guide.
- <https://wfview.org/wfview-user-manual/getting-started/>
- ICOM 7300 settings - https://docs.google.com/presentation/d/1L7R5kuRm-3afzIbbl8Z1h7XHAc__U4Mt9795nZiHHW4/edit?slide=id
- Took me 8 hrs to learn what I have so far documented here.
 - **Settings for the RIG.** For ICOM nice detail on the site wf site.

ICOM 7300 Server Setup

Follow the setup above before building the server.

The screenshot shows the 'Radio Server' configuration page of the ICOM 7300. The left sidebar contains a menu with 'Radio Access' highlighted by a yellow checkmark. The main content area is divided into three sections: 'Radio Connection', 'CI-V and Model', and 'Information'. The 'Radio Connection' section has a dropdown menu set to 'Icom' (annotated with a yellow dot) and two radio buttons: 'Serial (USB)' (selected) and 'Network'. The 'CI-V and Model' section has two checkboxes: 'Manual Radio CI-V Address:' (unchecked) and 'Use CI-V address as Model ID too' (unchecked). The 'Information' section contains text about audio controls. At the bottom, the 'Serial Connected Radios' section shows 'Serial Device' set to 'COM3 (IC-7300_02061633)' (annotated with a yellow dot), 'Baud Rate' set to '115200' (annotated with a yellow dot), and 'PTT Type' set to 'CI-V' (annotated with a yellow dot).

Radio Access
User Interface
Radio Settings
Radio Server
External Control
DX Cluster
Experimental

Radio Connection

CI-V and Model

Information

Serial (USB)
Network

Manual Radio CI-V Address: auto

Use CI-V address as Model ID too

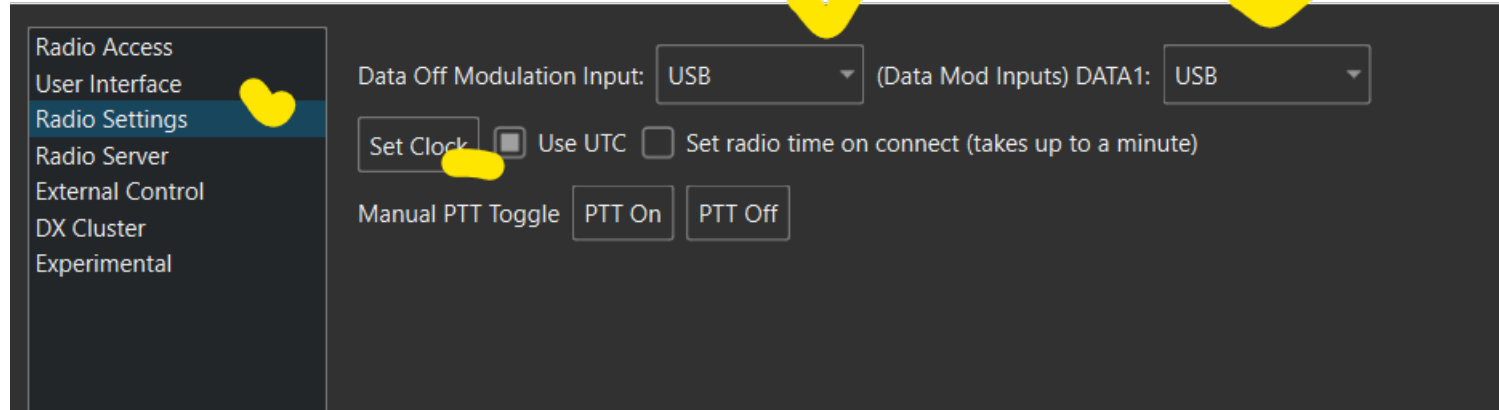
Audio controls on this page are ONLY for network radios
Please use the "Radio Server" page to select server audio.
ONLY use Manual CI-V when Transceive mode is not supported

Serial Connected Radios

Serial Device: COM3 (IC-7300_02061633) Baud Rate: 115200 PTT Type: CI-V

Radio Setting

USB can only be set with radio WFVIEW started. USB setting allows the sound and mic to pass via the server to/from client



Radio Server

User name and password for each user. Admin means all control.
We need to test the admin role of no transmit.

Radio Access
User Interface
Radio Settings
Radio Server
External Control
DX Cluster
Experimental

☒ Enable

Server Setup

Control Port 50001 Civ Port 50002 Audio Port 50003

RX Audio Input Microphone (USB Audio CODEC) TX Audio Output Speakers (USB Audio CODEC) Audio System Qt Audio

☒ Disable local user controls when in use (restart required)

Users

Username	Password	Admin
	Admin User
	Admin User

Remote Client Setting

W Settings - wfview

Radio Access ★
User Interface
Radio Settings
Radio Server
External Control
DX Cluster
Experimental

Radio Connection
Icom
Serial (USB)
Network

CI-V and Model
☐ Manual Radio CI-V Address: auto
☐ Use CI-V address as Model ID too

Information
Audio controls on this page are ONLY for network radios
Please use the "Radio Server" page to select server audio.
ONLY use Manual CI-V when Transceive mode is not supported

Serial Connected Radios
Serial Device: Baud Rate: 115200 PTT Type: CI-V

Network Connected Radios ★
Hostname: will supply xxxxx Control Port: 50001 Connection Type: WAN
Username: will supply Password: will supply
RX Latency (ms): 150 TX Latency (ms): 150 RX Codec: LCPM 1 ch 16k TX Codec: same 16bit
Sample Rate: 16000 Duplex: full duplex Audio System: Qt Audio
Audio Output: laptop speaker out Audio Input: laptop mic (1080P HD)

You **MUST** disconnect from the radio before making any changes in the above form. ★
Please use the *Connect/Disconnect* button below

Save Settings Revert to Default Disconnect from radio

User interface colors waterfall

W Settings - wvview

Radio Access
User Interface ✓
Radio Settings
Radio Server
External Control
DX Cluster
Experimental

☐ When tuning, set lower digits to zero ✓
☐ Auto SSB ✓
☐ Enable PTT Controls ✓
☐ Enable Rig Creator Feature (use with care)

Region: 1

☐ Interpolate Waterfall
☐ Anti-Alias Waterfall ✓
☐ Allow tuning via click and drag (experimental)
☐ Use System Theme
☐ Show full screen (F11)

Frequency Display: Units: MHz Separators: Decimal "." Groups: ","
☐ Force VFO Mode ☐ Auto Power-on radio

Underlay Mode: ☐ None ☐ Peak Hold ☐ Peak ☒ Average Underlay Buffer Size: ☐ Show Bands

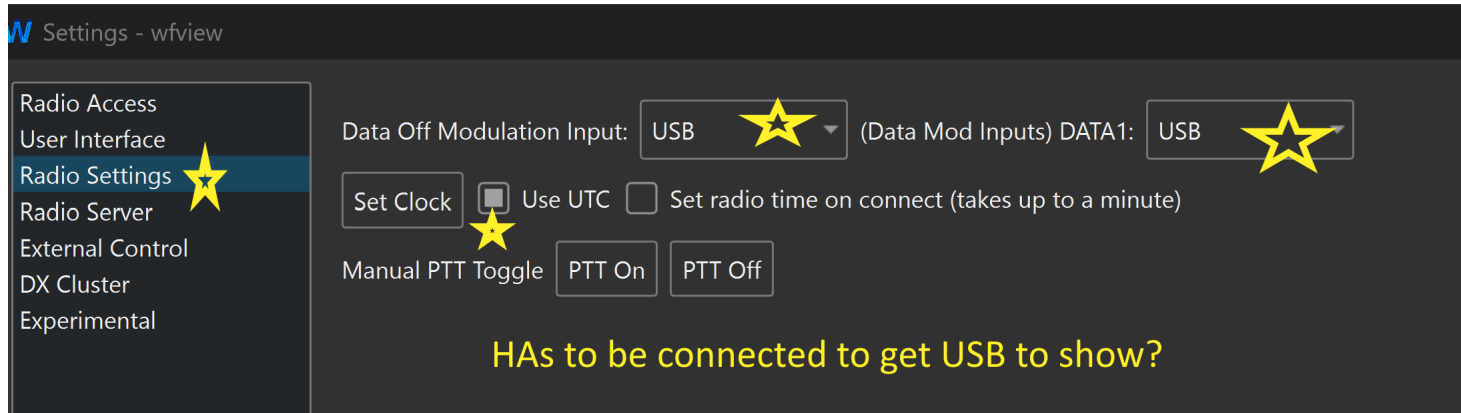
Additional Meter Selection: Sub S-Meter ✓ SWR ✓
☐ Reverse Comp Meter ☒ AutoPolling ☐ Manual Polling Interval: 25 ms

Color scheme Preset: Dark Revert Rename Preset

User-defined Color Editor

Grid	#ff000000	<input type="checkbox"/>	Tuning Line	#ffff55ff	<input type="checkbox"/>	Meter Scale	#ffeff0f1	<input type="checkbox"/>
Axis	#ffffff	<input type="checkbox"/>	Passband	#8032ffff	<input type="checkbox"/>	Meter Text	#ffeff0f1	<input type="checkbox"/>
Text	#ffffff	<input type="checkbox"/>	PBT Indicator	#0032ff00	<input type="checkbox"/>	Waterfall Back	#ff000000	<input type="checkbox"/>
Plot Background	#ff000000	<input type="checkbox"/>	Meter Level	#ff0a4669	<input type="checkbox"/>	Waterfall Grid	#00000000	<input type="checkbox"/>
Spectrum Line	#ffffff00	<input checked="" type="checkbox"/>	Meter Average	#ff3fb7cd	<input type="checkbox"/>	Waterfall Axis	#ffffff	<input type="checkbox"/>
Spectrum Fill	#00000000	<input type="checkbox"/>	Meter Peak Level	#ff8fd6ff	<input type="checkbox"/>	Waterfall Text	#ffffff	<input type="checkbox"/>
<input type="checkbox"/> Spectrum Gradient ✓			Meter High Scale	#ffff0000	<input type="checkbox"/>	<input type="checkbox"/> Underlay Gradient ✓		
Spectrum Fill Top	#ff000000	<input type="checkbox"/>	Underlay Line	#ff9633ff	<input type="checkbox"/>	Underlay Fill Top	#ff000000	<input type="checkbox"/>

Radio Settings Remote Client

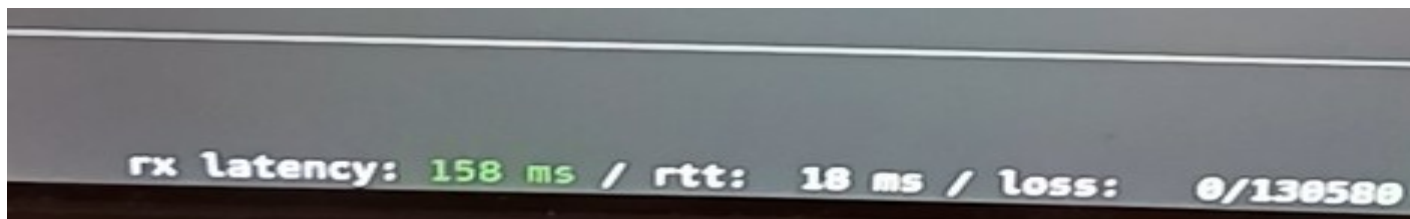


Remote Test Oct 13 2025

- Tested remote with win 11
- Tested remote with Ubuntu Linux
- SSB 10-80 M
- CW
- Transmit SSB tested

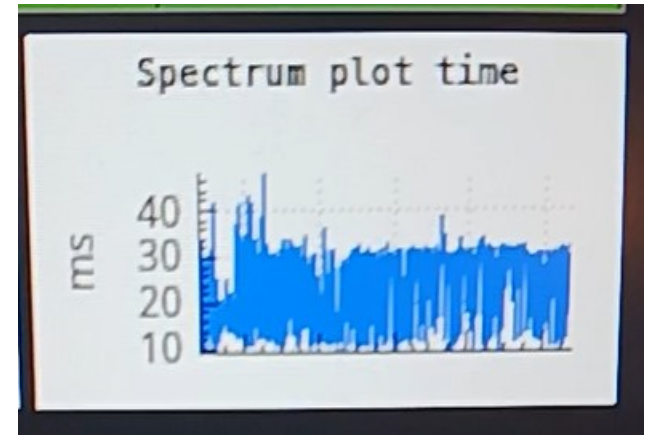
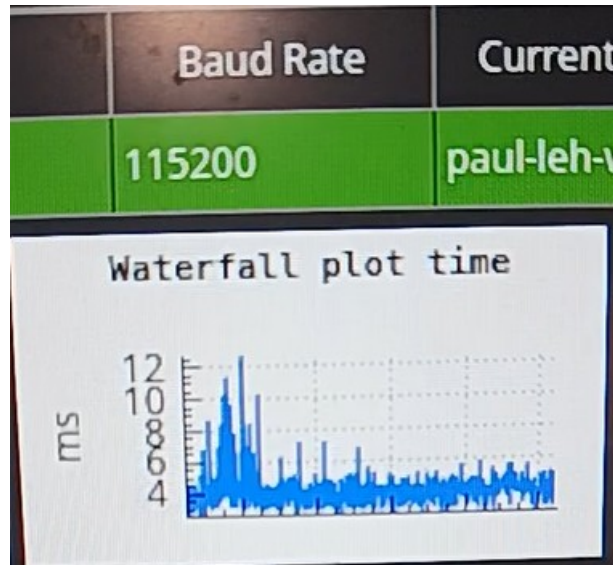
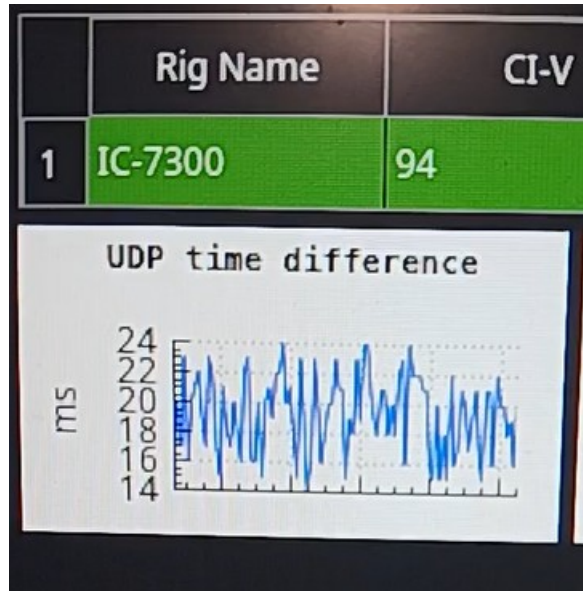
STATS

- Linux Ubuntu Client
 - RX Delay 158 ms RTT 18 ms Lost packets (Zero 0)



Time Waterfall Spectrum delay

- UDP time sync, add time sync (dimension4)/chrony linux



WSJT-X Digital

- Requires VAC

<https://vac.muzychenko.net/en/index.htm>

