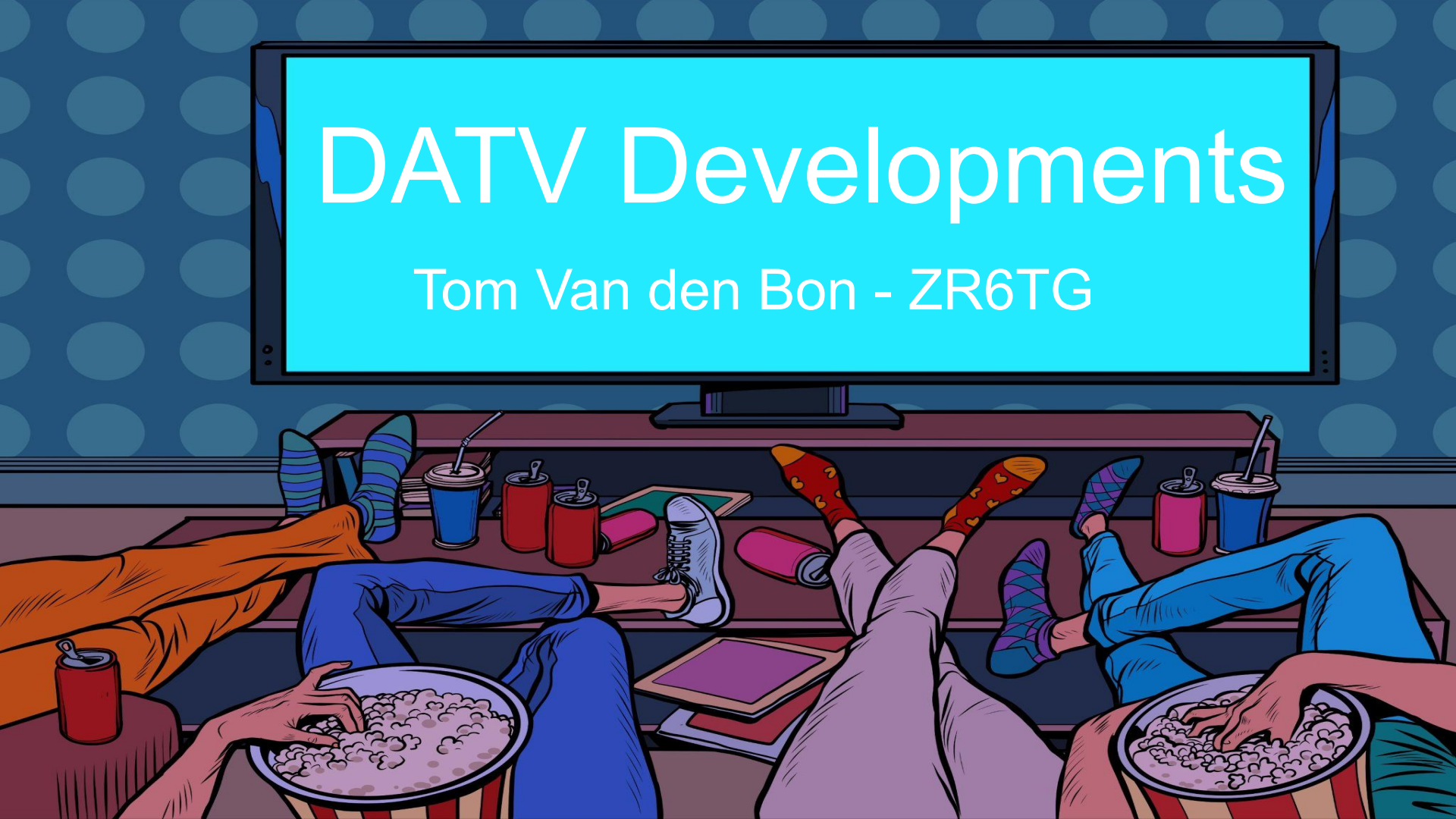
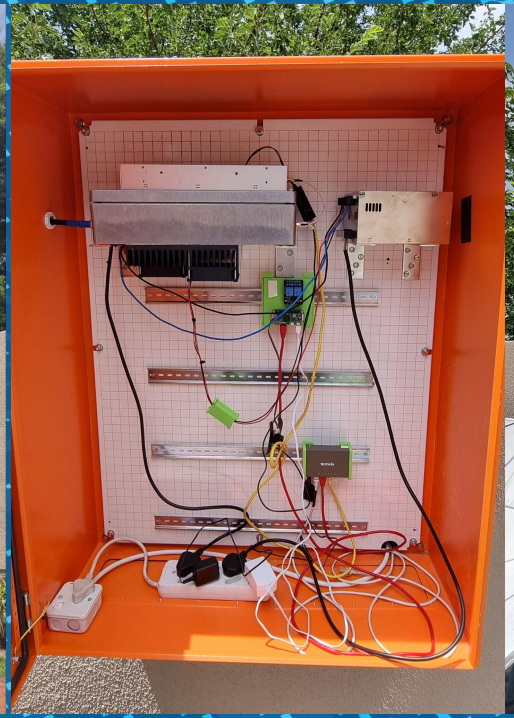
DATV Developments

Tom Van den Bon - ZR6TG



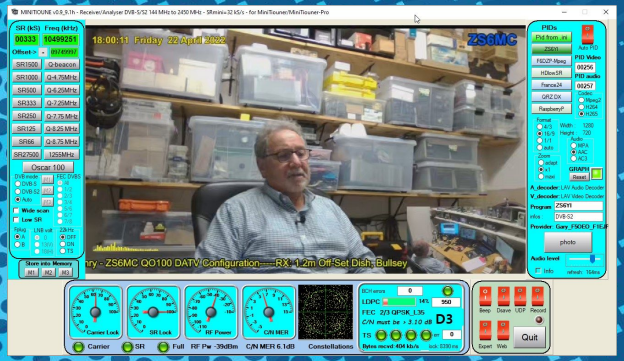
Whoami ?

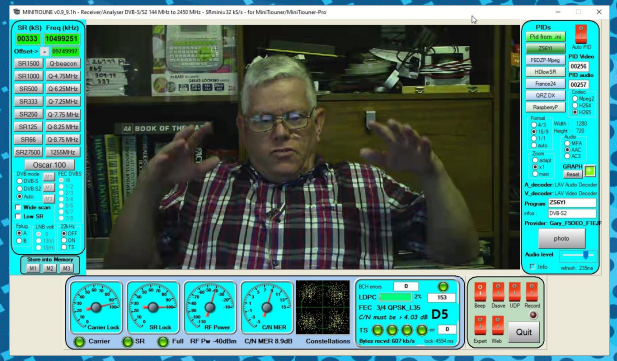




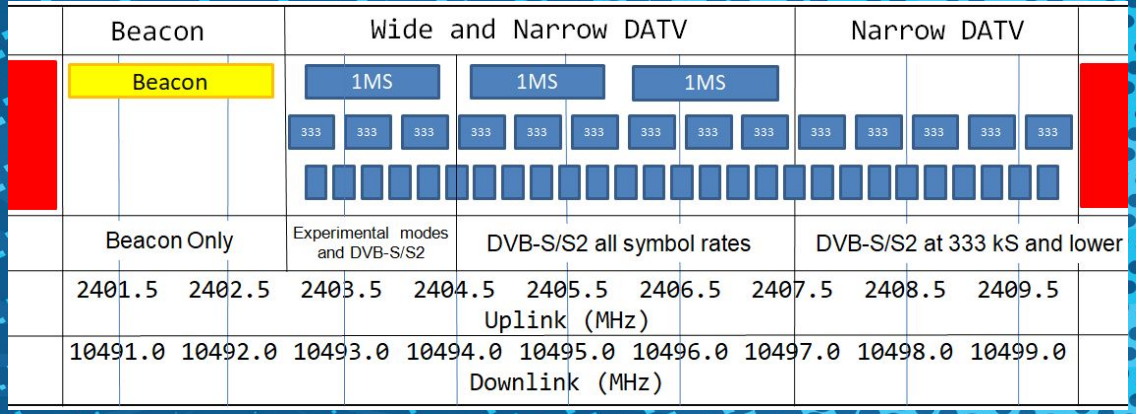

Tom Van den Bon - ZR6TG - South Africa - KG33WG

ZS DATV - QO100





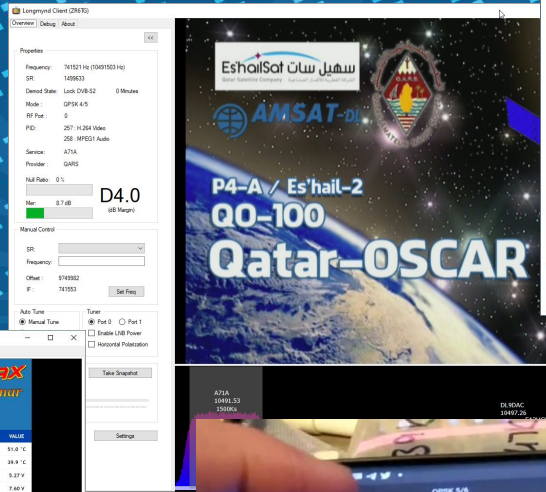
QO-100

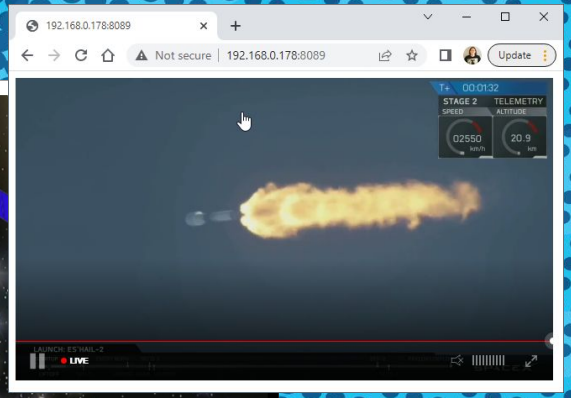


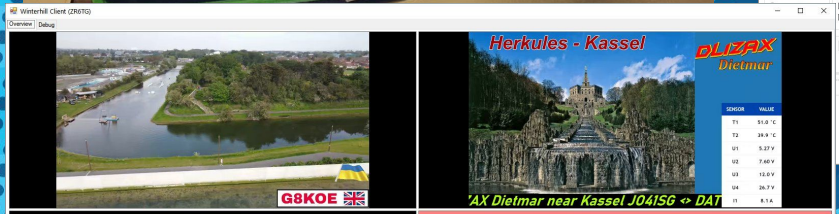
AMSAT-DL : https://amsat-dl.org/en/

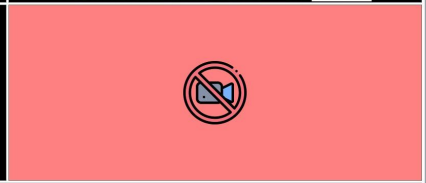
BATC : https://batc.org.uk/

Projects and Experiments - 2022

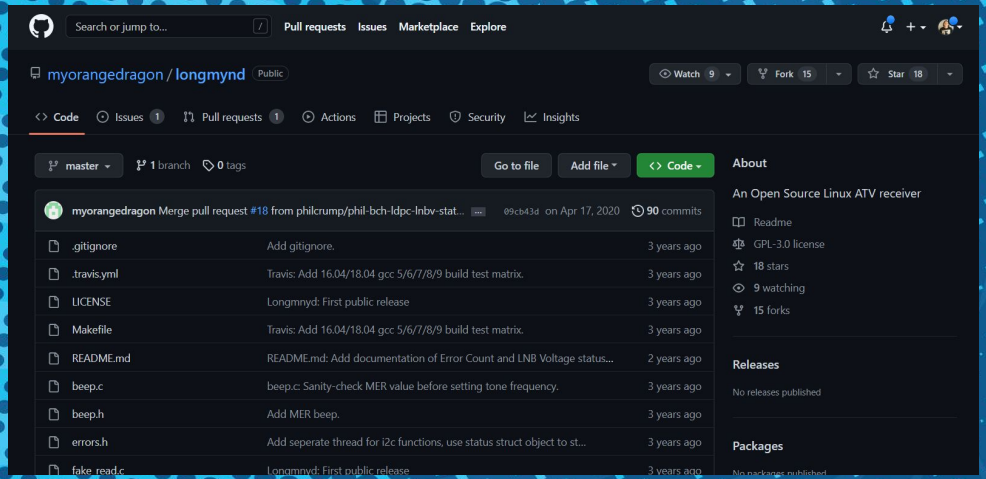


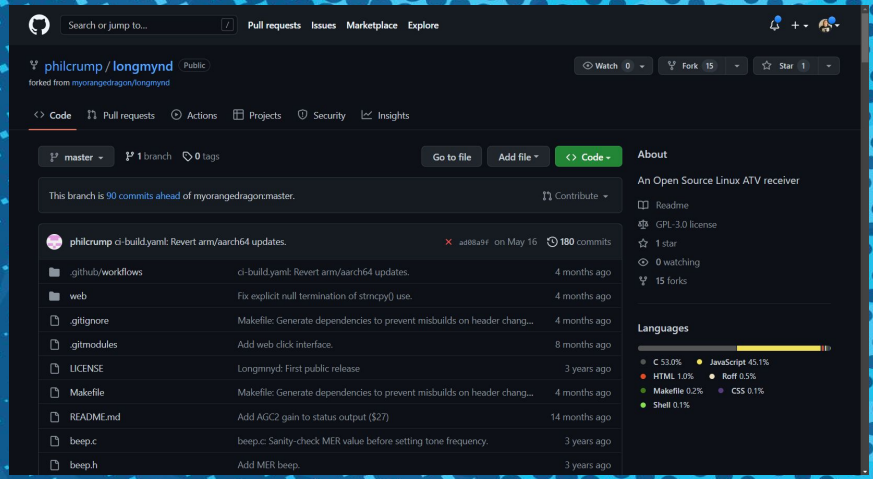






Longmynd

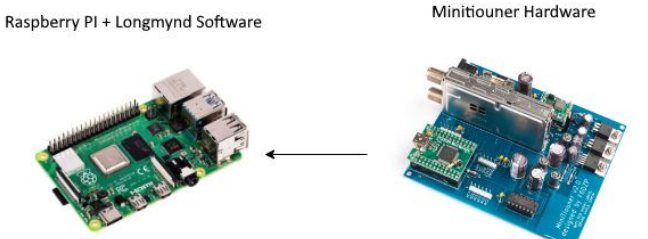


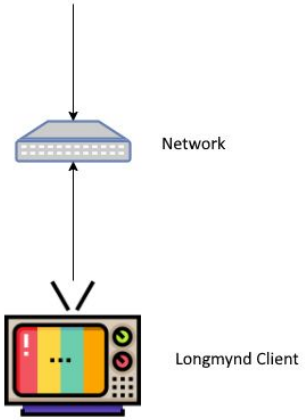


https://github.com/myorangedragon/longmynd

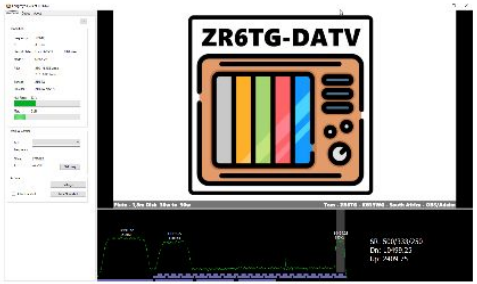
https://github.com/philcrump/longmynd

Networked DATV Receiver Concept





Remote access to minitiouner with Longmynd client v1



https://www.zr6tg.co.za/longmynd-client/

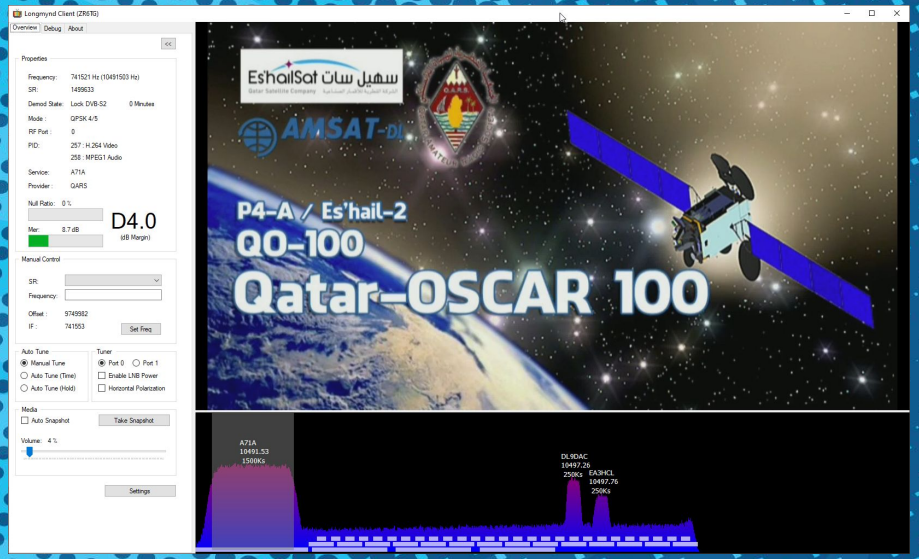
ZR6TG

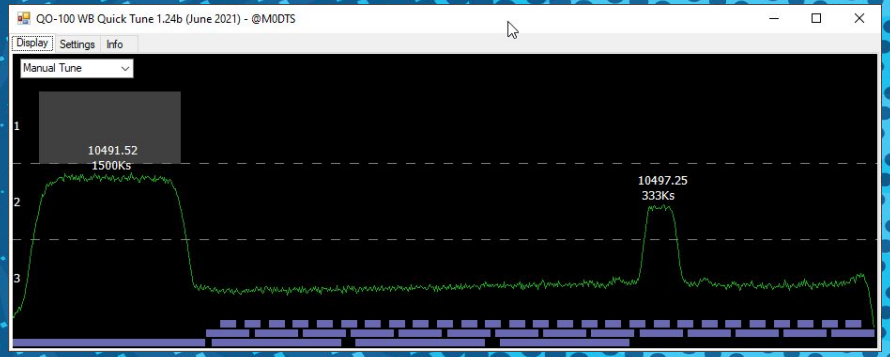
- Networked
- Multi Platform
- Raspberry PI
- Open Source
- Longmynd Based
- Multiple Clients

Longmynd Client

https://www.zr6tg.co.za/longmynd-client/

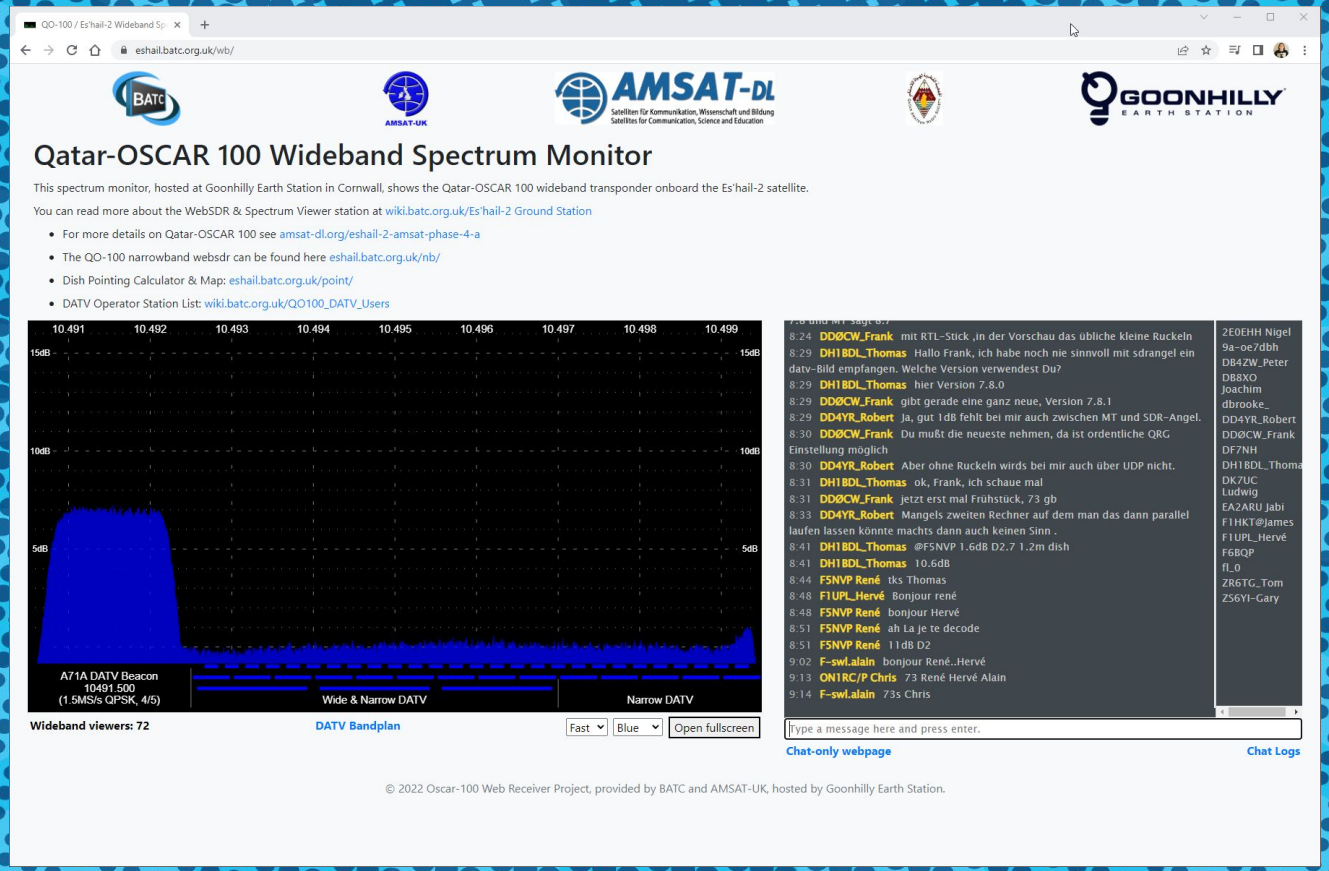
QO-100 Quicktune Integration



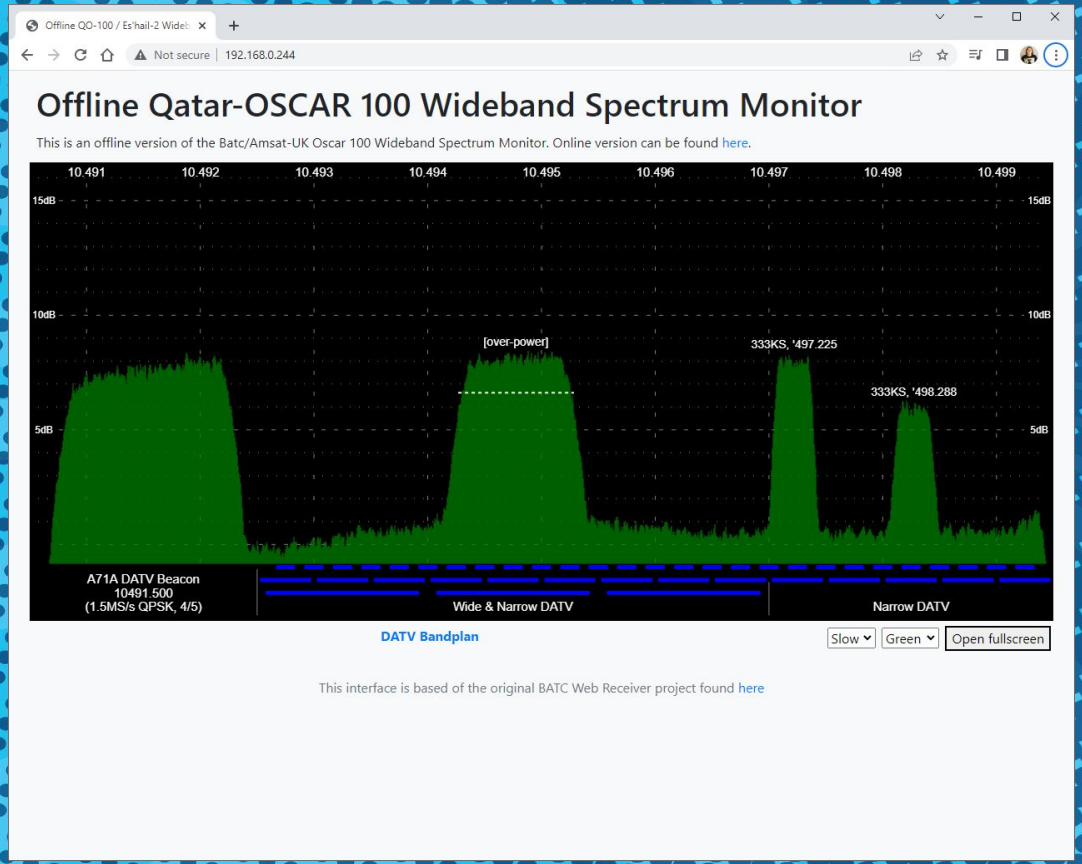


https://github.com/m0dts/QO-100-WB-Live-Tune

Online Wideband Spectrum Monitor



Offline Wideband Spectrum Monitor

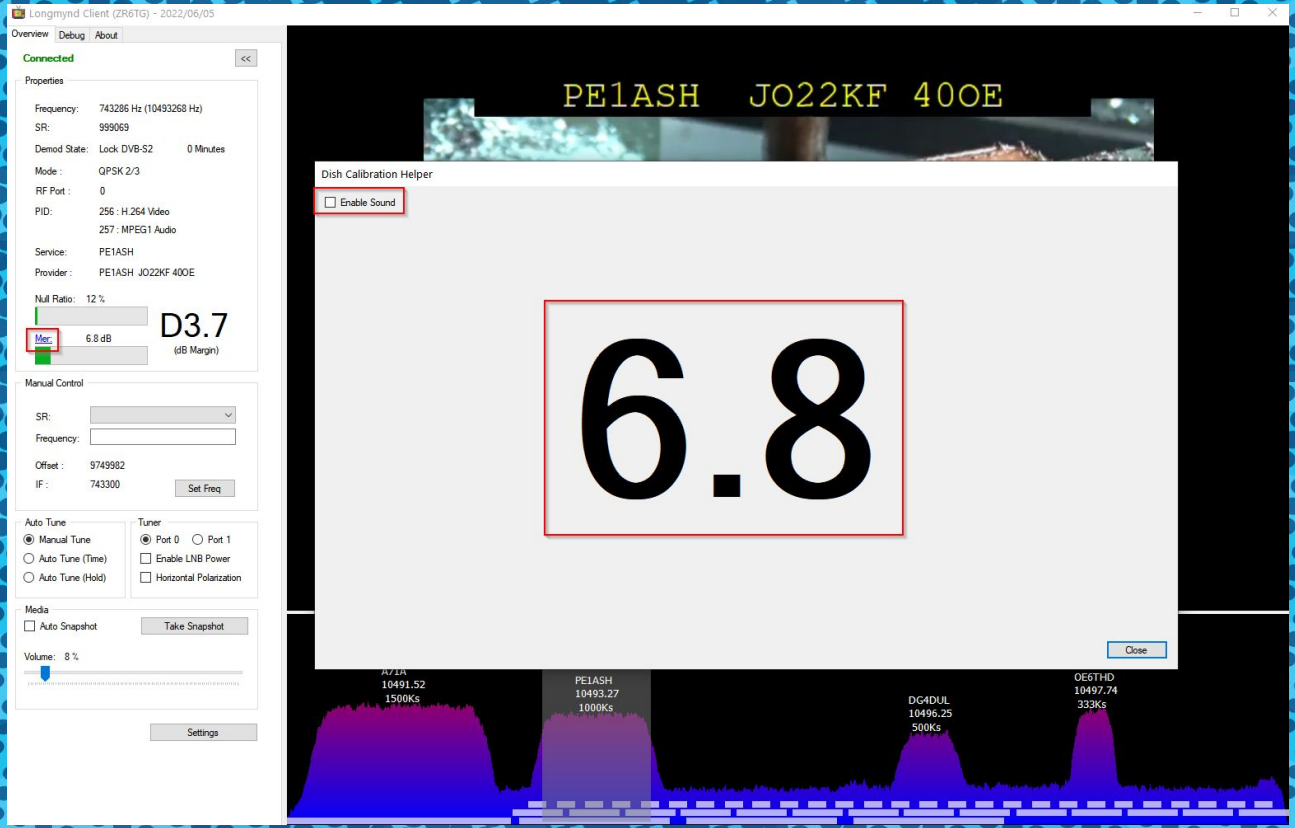


- BATC FFT Server
- Raspberry PI
- 8 Mhz Bandwidth
- Airspy R2 SDR
- Offline!
- No Chat :(

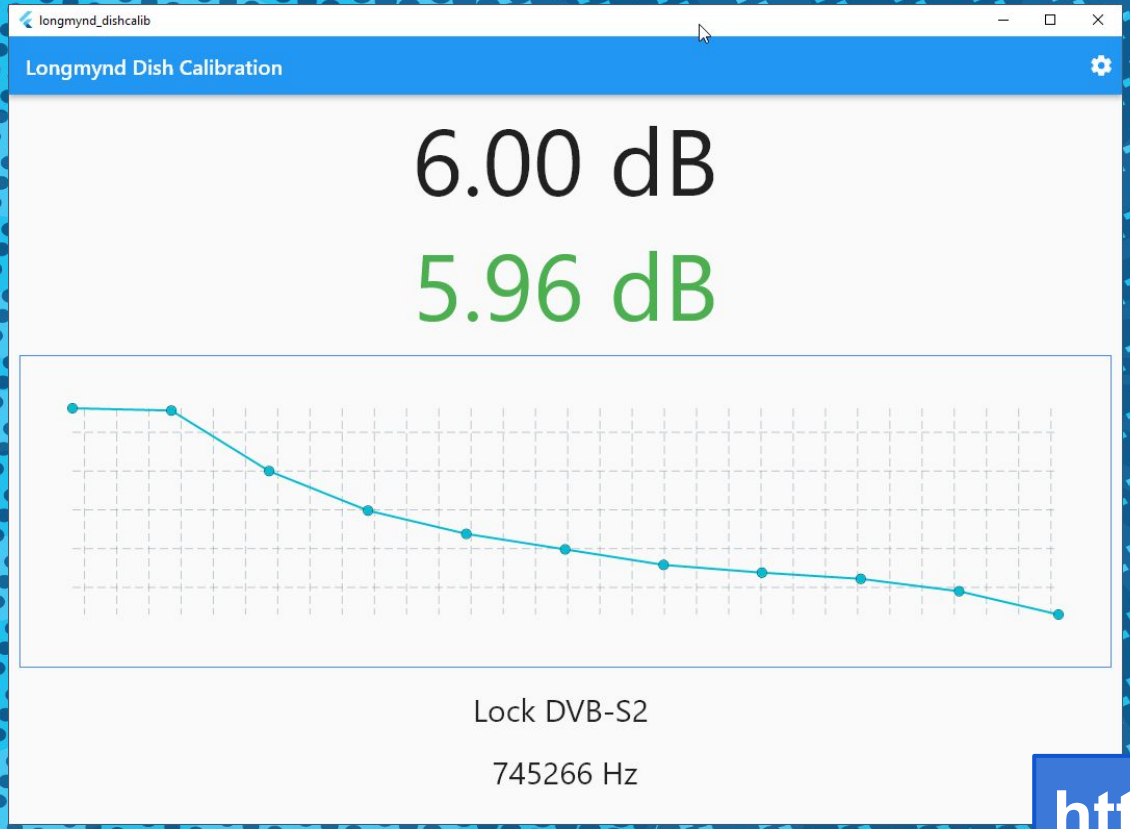
Shack Gadget - Activity Monitor

https://www.zr6tg.co.za

Dish Calibration

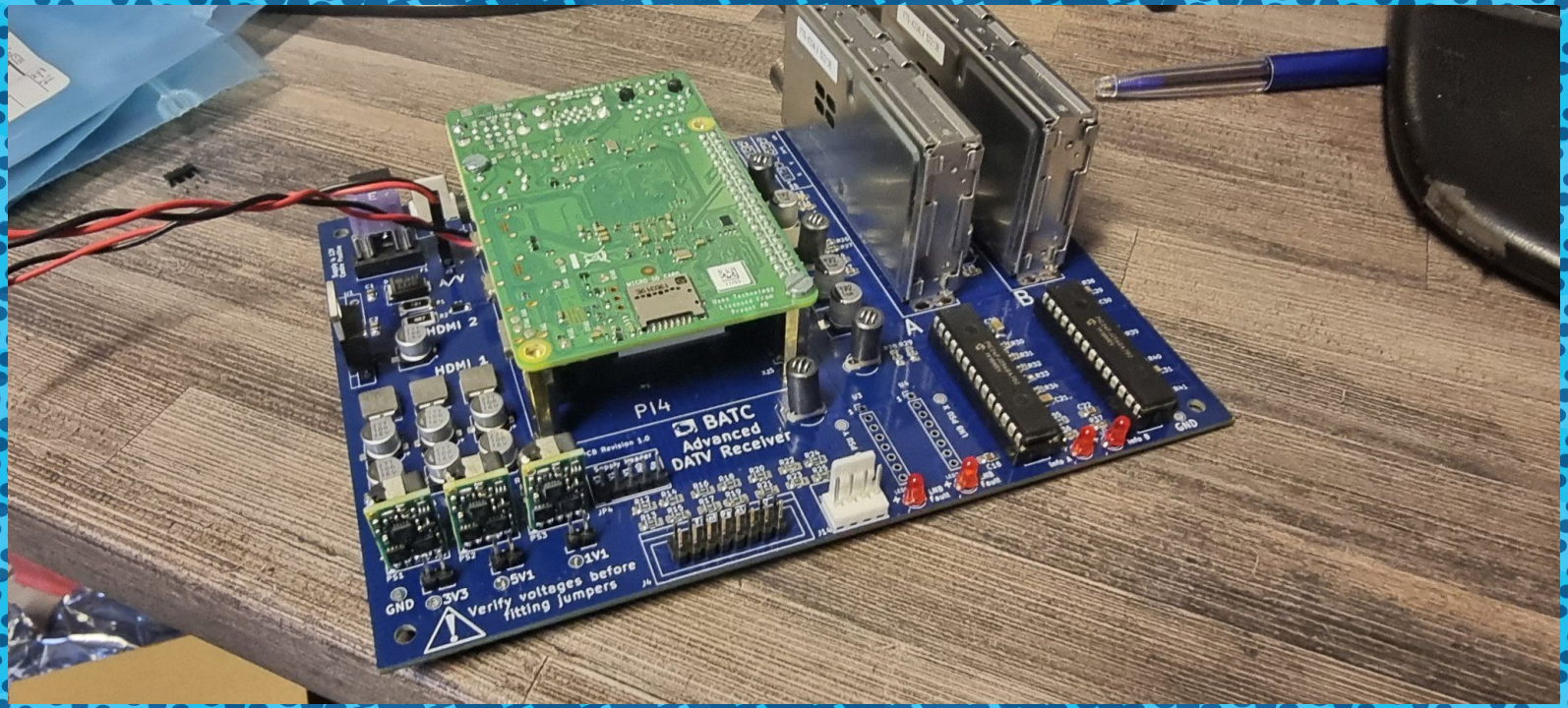


Mobile Dish Calibration App



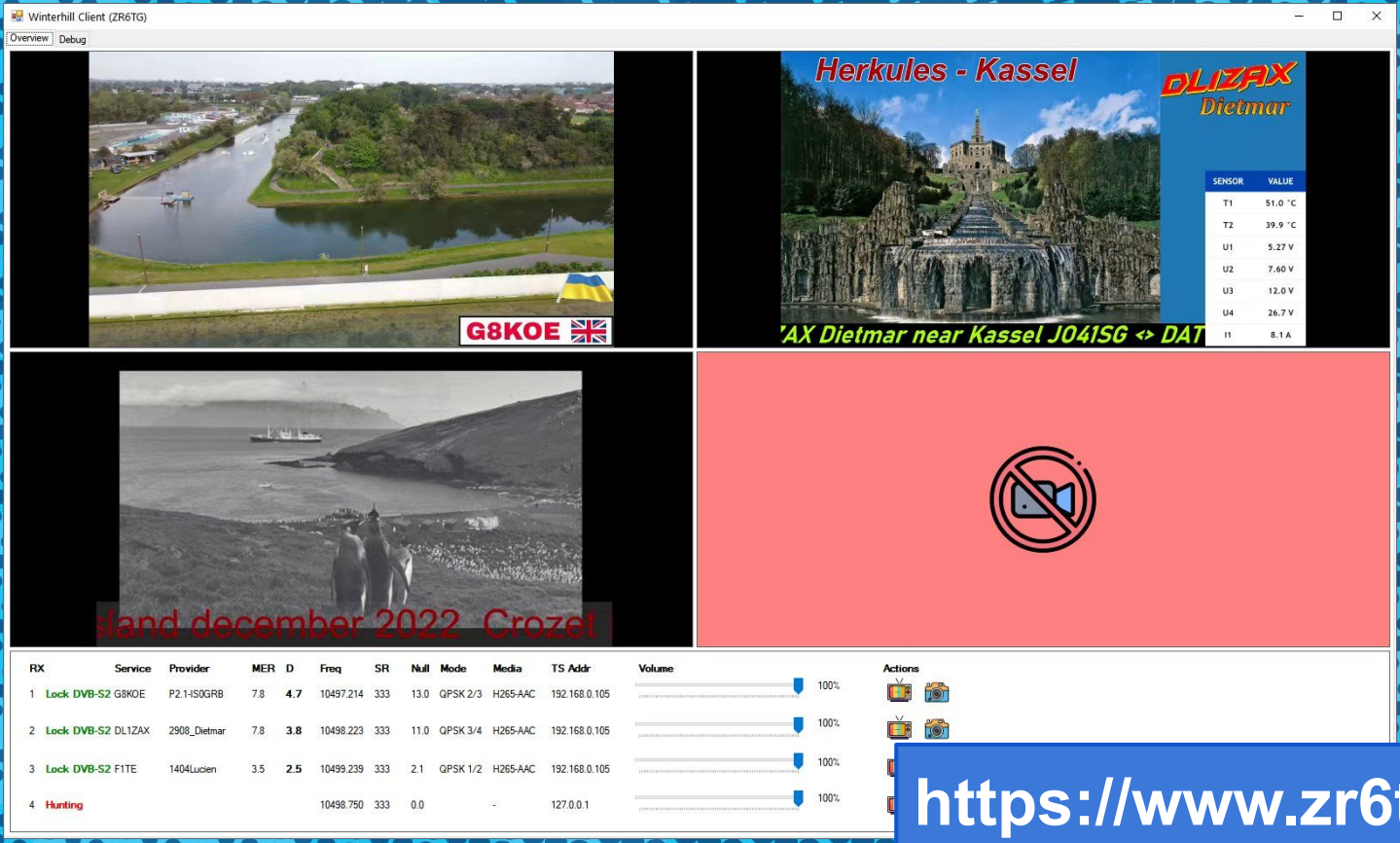
https://www.zr6tg.co.za

Winterhill - Advanced Receiver



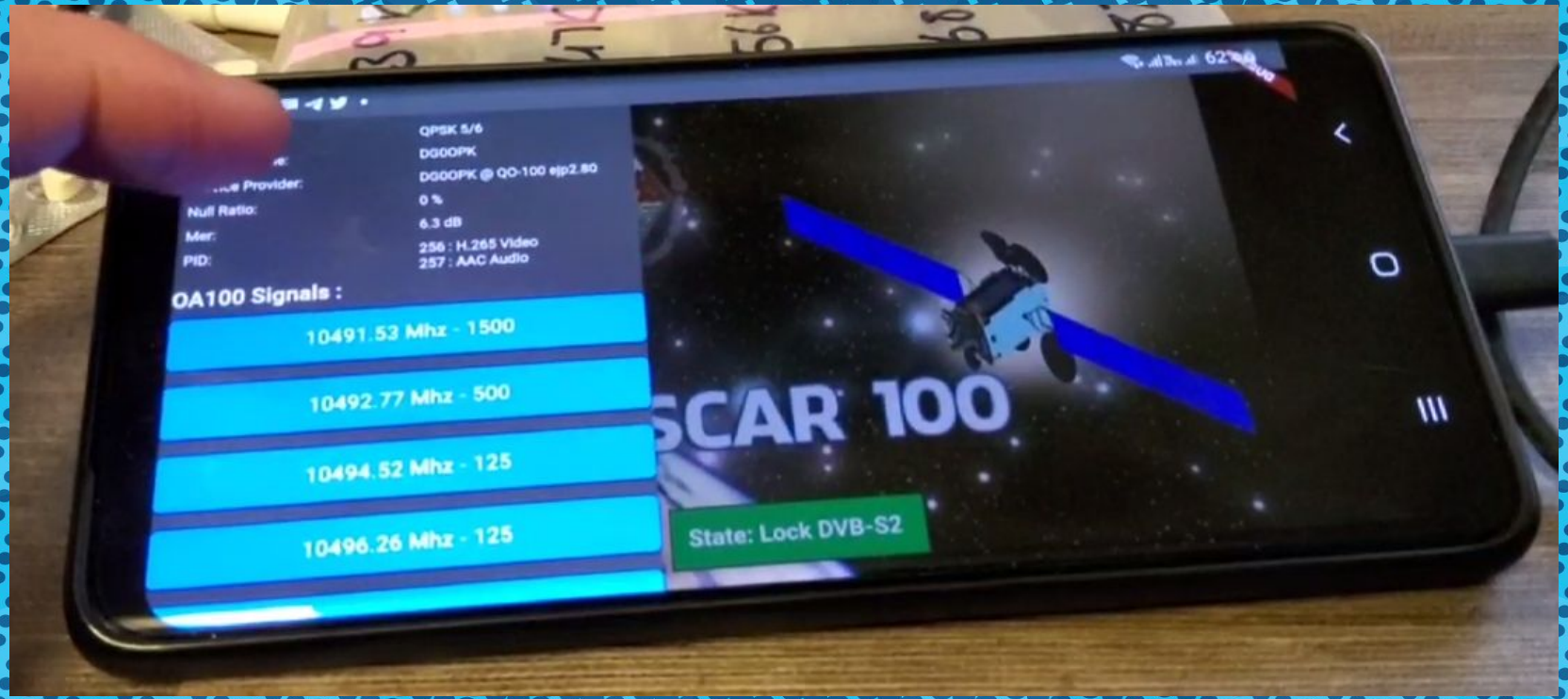
https://wiki.batc.org.uk/WinterHill_Receiver_Project

Winterhill Client

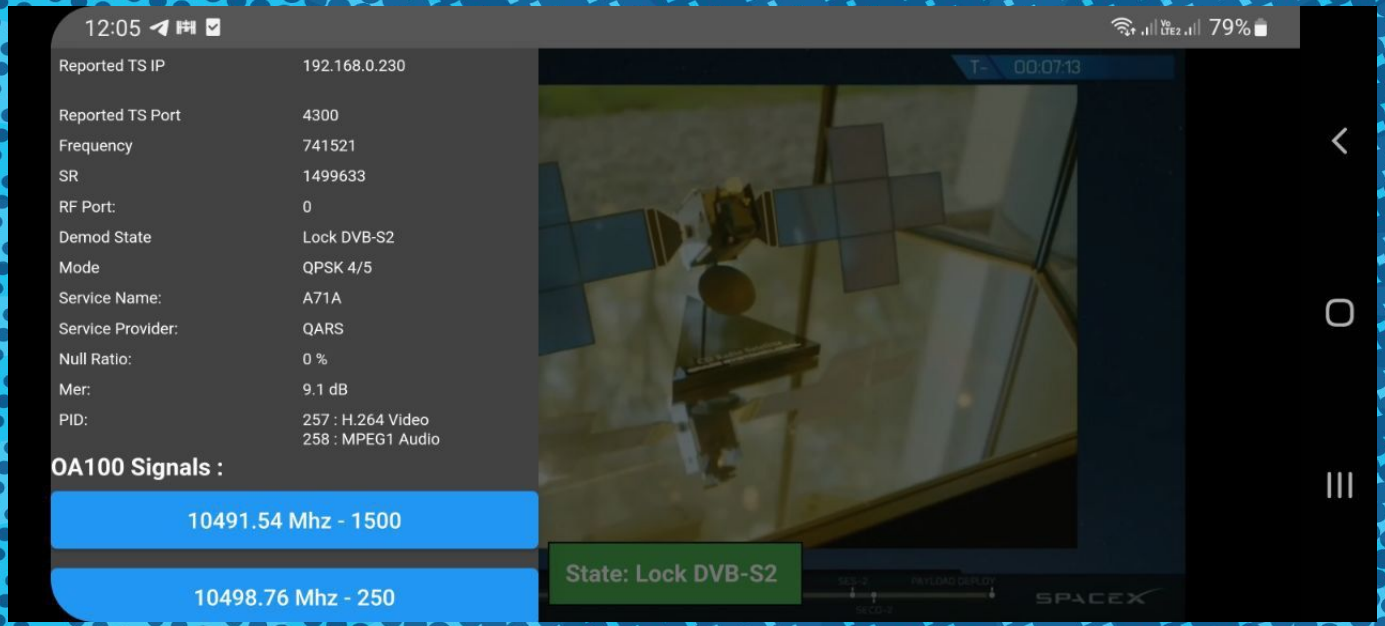


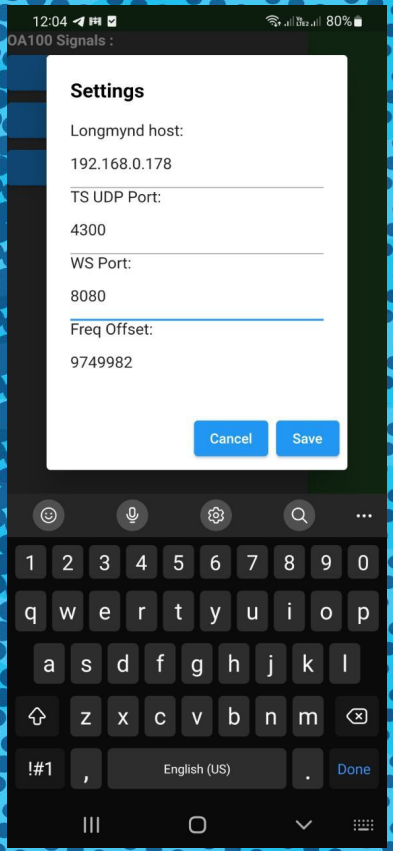
https://www.zr6tg.co.za

Android Client

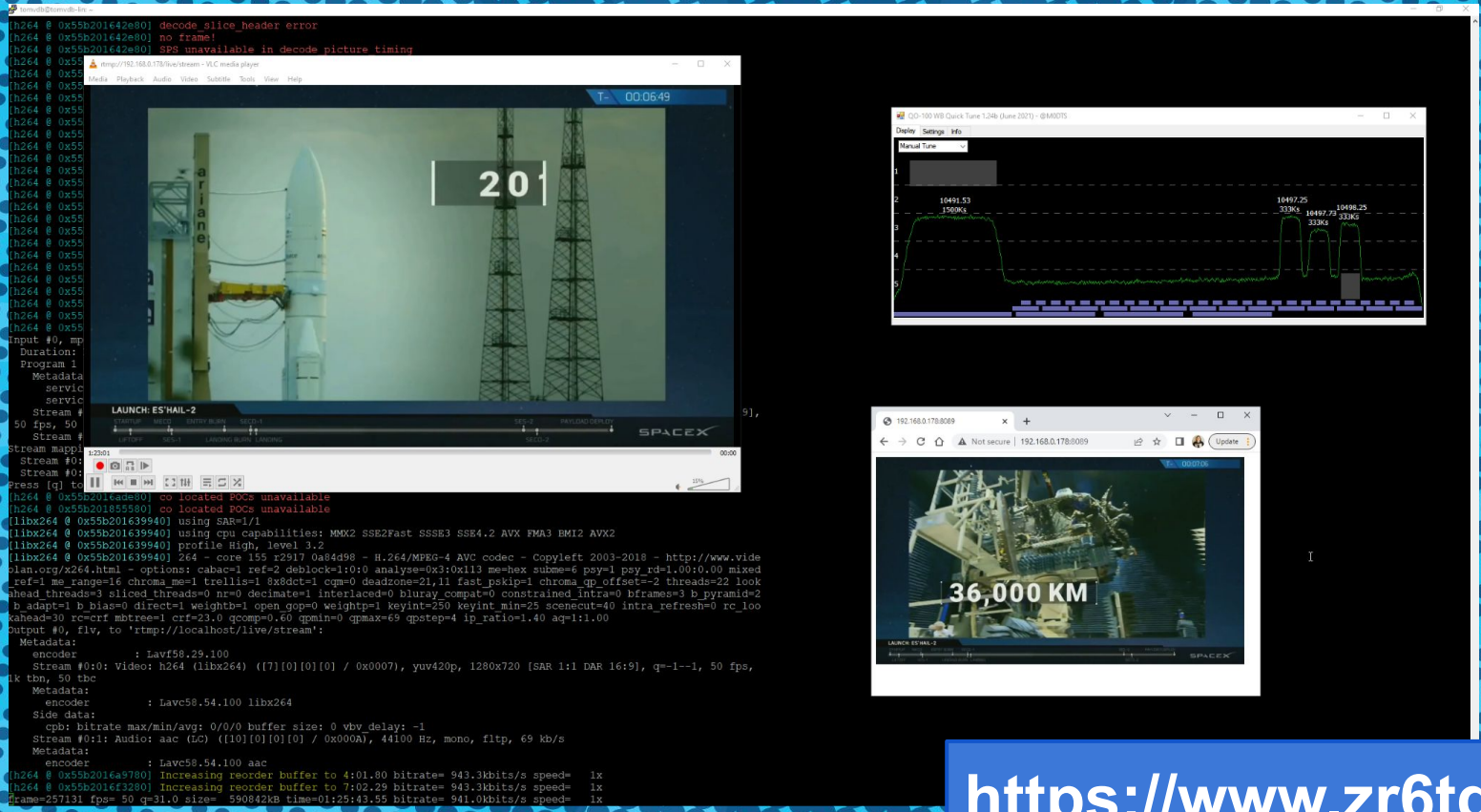


Android Client



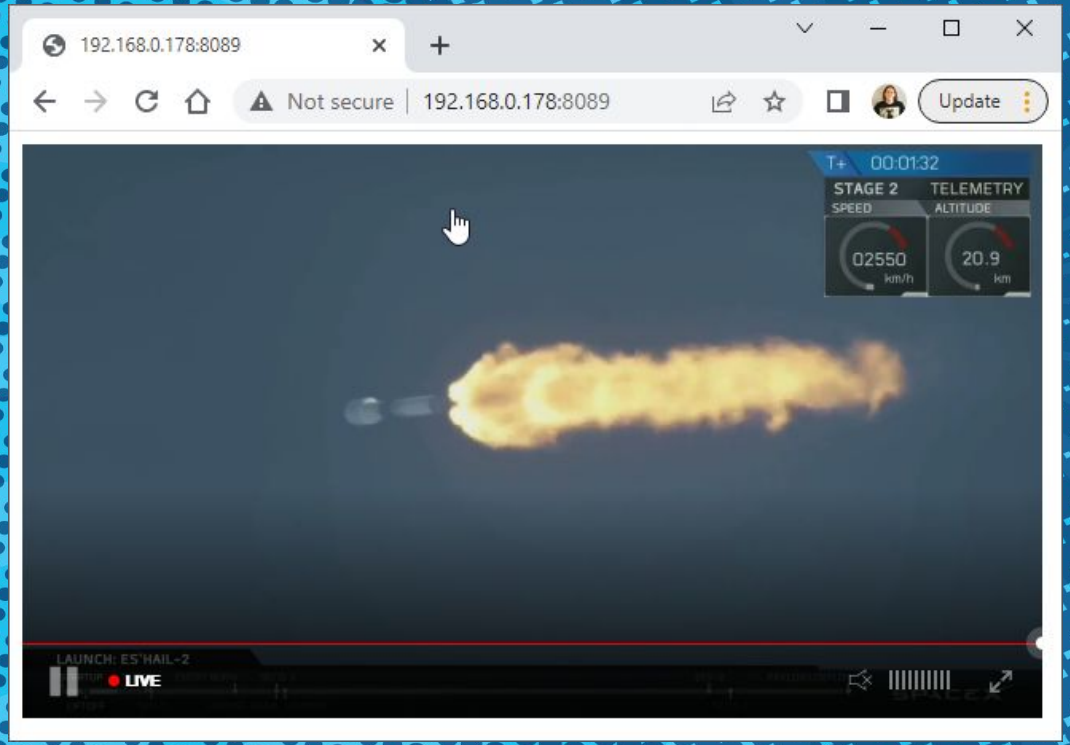


Webstreaming Experiment



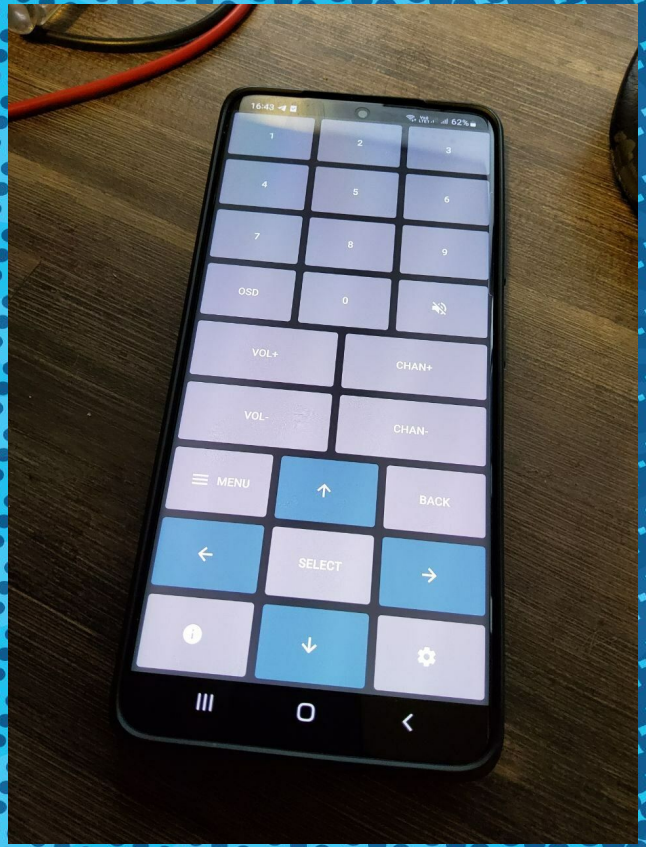
https://www.zr6tg.co.za

Webstreaming Experiment



- Nginx
- Nginx-RTMP
- FFMPEG

Mobile App Ryde Remote

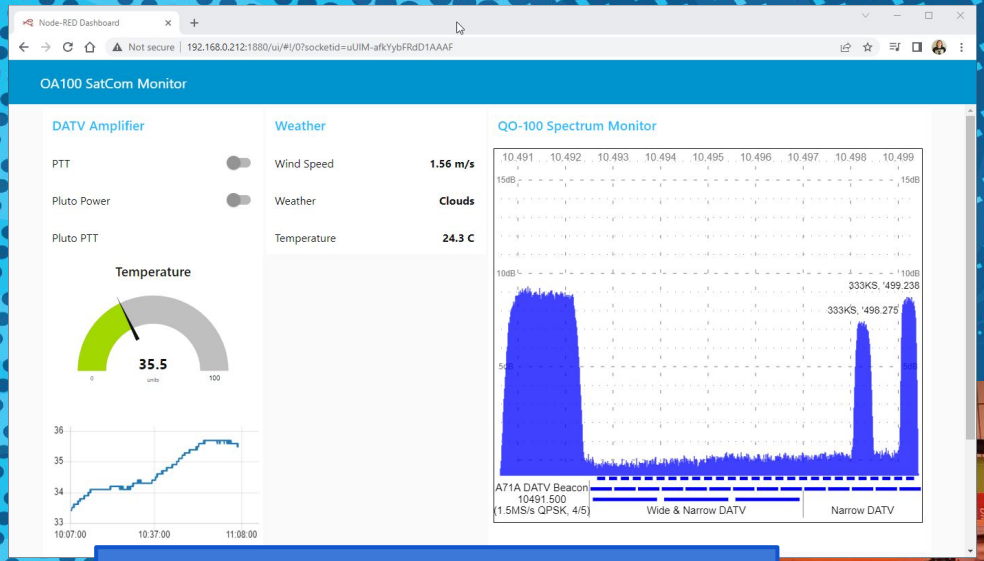


https://www.zr6tg.co.za

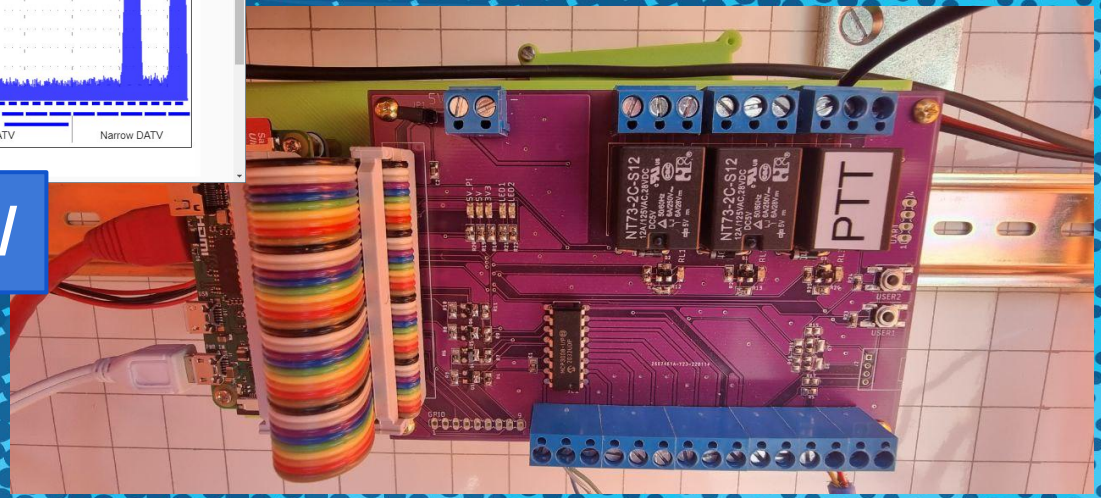
PlutoSDR via Network

- Some USB -> Ethernet Devices Unreliable
- PlutoSDR - USB Ethernet Device
- Basic configuration is setting up a firewall to forward the ports
- Ports: 22 (ssh), 80 (web), 30431 (sdr soft), 8282 (datv firmware)

DATV Monitor Station



https://nodered.org/



Thank you!

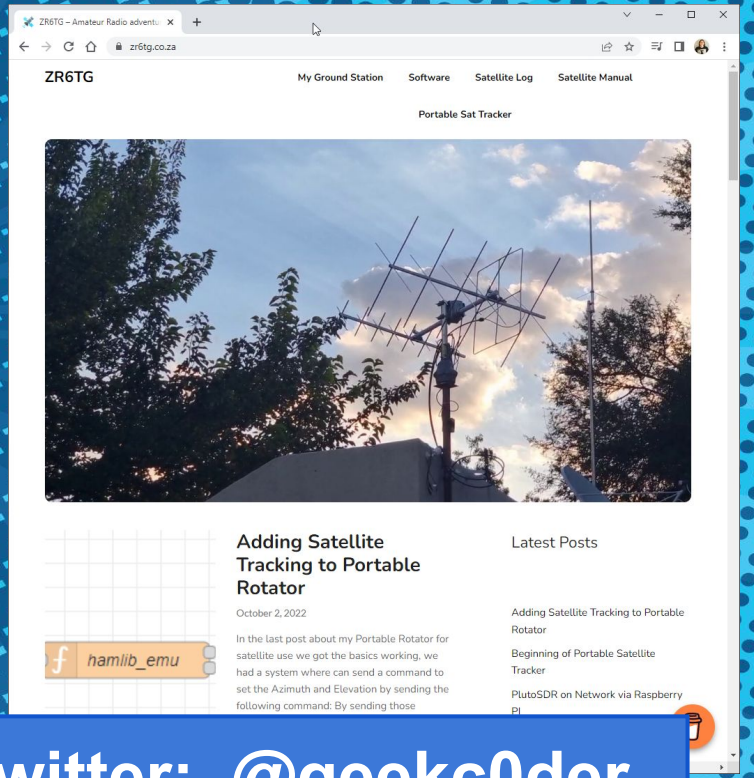
Thanks to the BATC and AMSAT-DL!

Also thanks to the following individuals that have been an important part of all the experiments:
Phil - M0DNY
Rob - M0DTS
Dave - G8GKQ
Brian - G4EWJ
Martin - G4FKK
Benno - PA3FBX
Bert - PA3AOD
Gary - ZS6YI

Any everyone who bought me a beer or two ;)

Resources

- Software Downloads/Instructions https://www.zr6tg.co.za/
- British Amateur Television Club https://batc.org.uk/
- Amsat-DL https://amsat-dl.org/en/



Twitter: @geekc0der