

Introduction to QRSS

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What is QRSS?

- QRSS is extreme slow speed CW. The name is derived from the Q-code QRS (reduce your speed).
- To take advantage of the very narrow bandwidth of the transmitted signal an appropriate filter at the receiver end is needed.

Operating Practice de ON7YD

- The (unofficial) QRSS/DFCW segment is 137600Hz - 137800Hz, most activity is between 137700Hz and 137750Hz
- You need a stable TX : long term stability of 5Hz is an absolute minimum, 1Hz or better is recommended
- Keep your CQ's short : eg. **CQ G3XXX K**

Operating Practice de ON7YD

- The report system is the **TMO** system (similar to EME) :
 - **T** = signal traces seen but not good enough for a QSO
 - **M** = weak signal but good enough for a QSO
 - **O** = perfect copy
- A dot length of 3 seconds is recommended, eventually 5 seconds if very weak signals are expected

Operating Practice de ON7YD

- For DFCW a shift of 5Hz (with 'dash' being the higher frequency) and a key gap of 1 second is recommended.
- If you see the end of a QSO and you want to contact one of the stations you can start calling this station while the previous QSO is going on, just call on another frequency.

Operating Practice de ON7YD

- If replying to a CQ it is recommended to call **NOT** exactly on the frequency of the other station, this will avoid QRM in case more than 1 station is responding. Due to the slow 'transmission rate' it is recommended to limit the QSO to exchange of callsigns and reports, especially if you are located close to another radio amateur that is active in this mode (one strong signal can 'block' the entire QRSS segment).

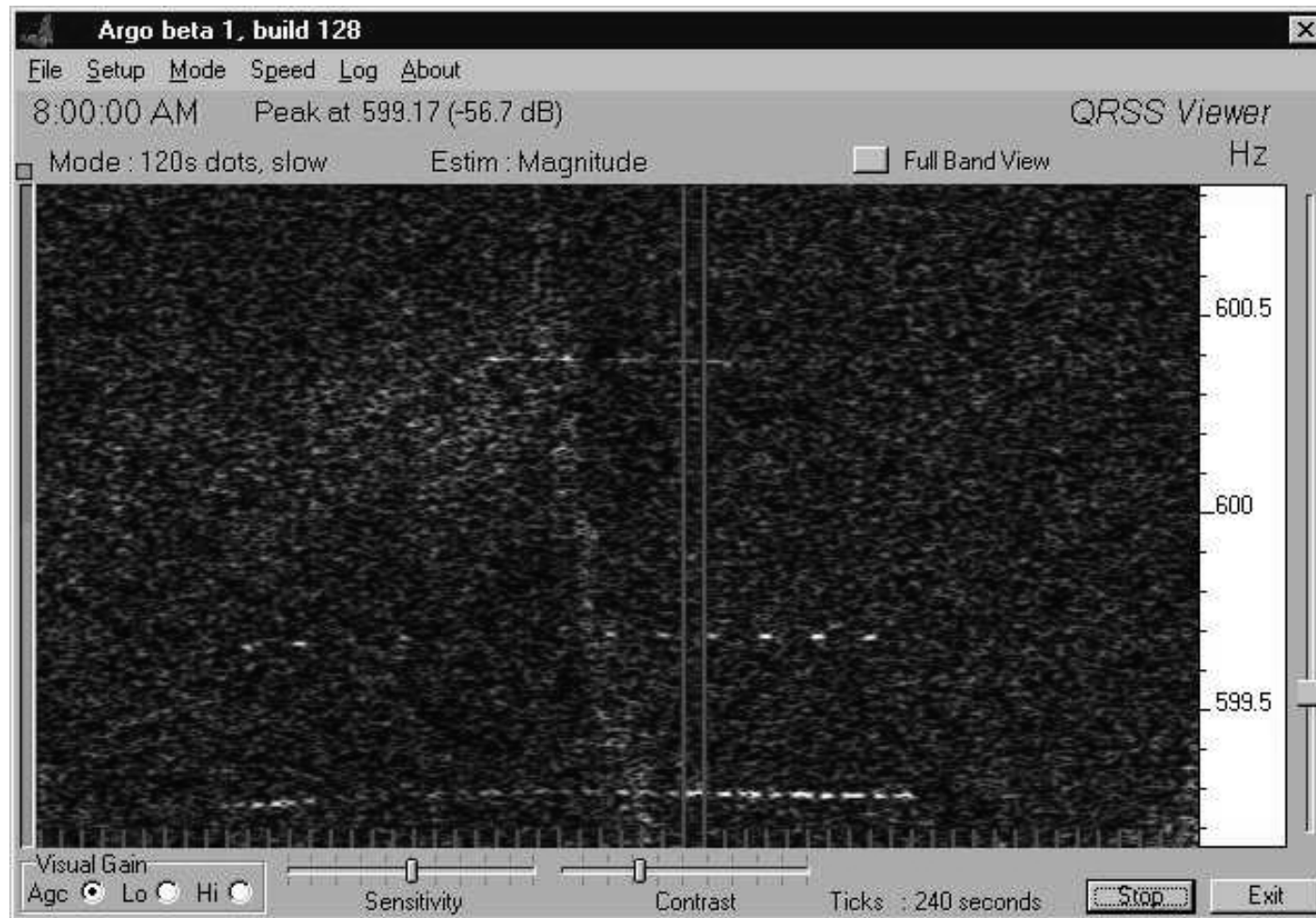
QRSS Requirements

- Frequency stability
- Frequency accuracy

Argo

- Argo is a viewer for slow CW, like QRSS and DFCW, still in experimental stage.
- It is freeware for ham and hobbyist use.
- Beta 1, build 128 features various QRSS modes (3, 10, 20, 30, 60, 90 and 120 sec/dot) reaching a frequency resolution down to 5 mHz (milliHertz).

VE7SL Rx of ZL6QS: 184.4 kHz,
0.4 Hz shift, 5 W ERP (26 Sep 01)



Spectran

- dB calibrated display
- Timed screen capture (BMP, JPEG or GIF)
- Improved adjustability of the dynamic range
- Preset modes for NDBs and QRSS
- Sampling up to 48 kHz
- Smooth waterfall scrolling

QRSS Resources

- Alberto, I2PHD and Vittorio, IK2CZL
 - Argo and Spectran: freeware for amateur use
 - <http://www.qsl.net/padan/>
- “QRSS and You” -- good QRSS overview website with many links
 - <http://www.usmc.com/~turner/qrss1.html>
- ON7YD Extreme Narrow Bandwidth page
 - <http://www.qsl.net/on7yd/136narro.htm#QRSS>