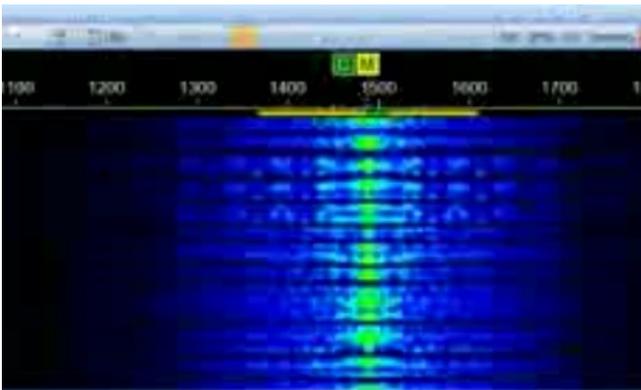


Feld Hellschreiber

What is Hellschreiber?

Hellschreiber, or Hell, is a method of sending and receiving text using facsimile technology. It is unique in that the characters are not decoded, but printed on a screen. There are several modes of Hellschreiber, the most popular being a single-tone version called Feld-Hell, an on-off keyed system with 122.5 dots/second, or about a 25-35 WPM text rate. FH has a narrow -3db bandwidth of about 75 Hz. Feld-Hell also has the advantage of having a low duty cycle meaning your transmitter will run much cooler with this mode.

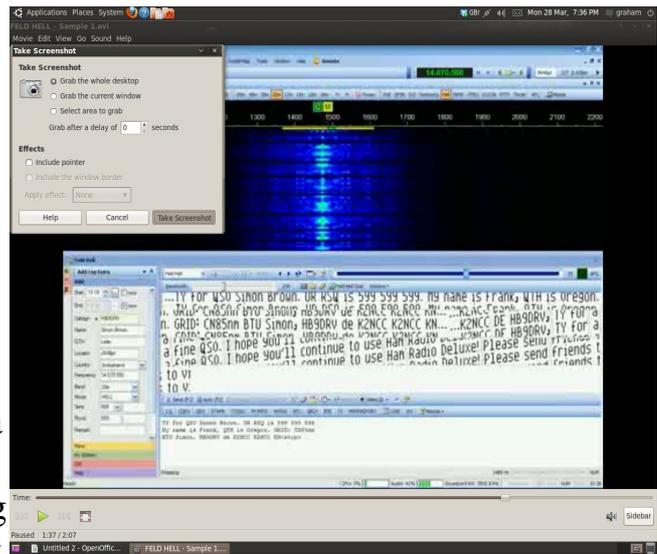
What does it look like on the waterfall?



Gaps because it's on/off keying!

Why Hellschreiber?

To do the same job as RTTY but with very simple systems – very few moving parts, unlike the teleprinter! So simple that the signal does not require ANY computing. It has a very good weak signal performance as the human eye/brain interprets the output. There is absolutely no sync signal used in this mode. Instead the text is sent displayed three times so that 100% can be read even if TX and RX are well out of synchronisation. (Manifests as 'sloping' lines of text.)



Activity?

Relatively low level but there are 'centres of activity' as follows:-

- 160 METRES 1.804
- 80 METRES 3.574 to 3.584
- 40 METRES 7.077 to 7.084
- 30 METRES 10.137 10.144 (Region I)
- 20 METRES 14.063
- 17 METRES 18.104
- 15 METRES 21.074
- 12 METRES 24.924
- 10 METRES 28.074
- 6 METRES 50.286

Plusses?

- You can run your rig at 100W because the characteristics are much like CW. The duty cycle on average is 22% (differs per character)
- Directly human readable, needs no decoder
- High peak to average ratio in signal gives very good readability in noise.

Software known to include 'Hell':-

- Hamradio Deluxe
- fldigi

Interface – same one as for psk31