

New release of MULTIPSK (4.52)

RX/TX: PSK10 / BPSK31-63-125-250 / QPSK31-63-125-250 / CHIP (64/128) / PSKFEC31 / PSKAM10-31-50 / PSK63F - PSK220F + DIGISSTV "Run" / DTMF / CW / NDB / CCW / CCW-FSK / QRSS / THROB / THROBX / DTMF / MFSK8 / MFSK16/32/64 (+ SSTV) / MIL-STD-188-141A / ARQ FAE / MIL-STD-188-110A / ALE400 / OLIVIA / CONTESTIA / RTTYM / VOICE / JT65 / DominoF DF / DominoEX / THOR / MT63 / RTTY 45 / 75 / RTTY 50+SYNOP+SHIP / ASCII / AMTOR FEC / PACKET FSK 110-300-1200 + APRS+ DIGISSTV "Run" / PACKET BPSK1200-250-63 / PACTOR 1-FEC / PAX+PAX2 + APRS / FELD HELL / PSK HELL / FM HELL (105-245) / HELL 80 / HF-FAX / SSTV (+ QR Code) / LENTUS / AUTEX / RS ID / CALL ID / EM / DSTAR / PSK125R/250R/500R / WSPR / FT8 / FT4

RX only: AMTOR ARQ / NAVTEX / RTTY 100 to 200 / 1382 / GMDSS DSC / ATIS / ACARS (VHF) / DGPS / SELCAL / COQUELET / NWR SAME / STANAG 4285 / HF DL / IEC 870-5 / ARQ-E / ARQ-E3 / POC SAG / BIIS / AIS / RDS / EPIRB-ELT-PLB beacons / Packet 9600 bauds (G3RUH) / VDL2 / ARGOS / Mode S (ADS-B) / ORBCOMM / AERO / EGC / M10/M20 / RS41 / DFM06-09 / LMS6 / C4FM / DMR / P25 / LRPT / IMET4 / FLEX / EEA / CCIR

DSP: Filters + CW binaural reception

Identifiers: Video ID, RS ID, Call ID

PSK Panoramic (BPSK31/BPSK63/PSKFEC31): RX 23 or 36 channels simultaneously

CW Panoramic: RX 8, 23 or 36 channels simultaneously

RTTY Panoramic: RX 8 or 12 RTTY QSO decoded simultaneously on 22 or 35 channels

Programming of Multipsk reception

Satellites tracking

TCP/IP digital modem

Included SDR demodulator/modulator

SDR TCP/IP interface

SDR spectrum

CLOCK 1.11.13 (ALS162 (ex FRANCE-INTER), DCF77, MSF, WWVB, WWV, WWVH, CHU, JJY, RAI (no more in service), BBC, GPS, Internet)

OMMAP 1.5 mapping program interfaced with Multipsk

Pour les francophones: la version en français de ce message se trouve sur mon site (<http://f6cte.free.fr>). Il suffit de cliquer sur le lien "Principales modifications (courriel avertissant de la sortie de la nouvelle version)".

Hello to all Ham and SWL,

The new release of **MultiPSK (V.4.52)** is on my Web site (http://f6cte.free.fr/index_anglais.htm).

The mirror site is Earl's, W8BR: https://www.paazig.net/f6cte/MULTIPSK_setup.exe

The MD5 signature of the downloaded MULTIPSK_setup.exe file permitting checking (with WinMD5 for example), that the downloading was without error, is equal to:

28c109df853f6a661eb8a228a093db43

While installing Multipsk, an error message about the "C:\MULTIPSK\HFDL_System_Table.txt" file can possibly appear. In this case, click on the "Recommencer" (i.e. "Try again") button.

Multipsk and associated to Clock and OMMMap are freeware programs but with functions (mainly professional modes decoding for Multipsk) submitted to a license (by user key).

The improvements of MULTIPSK 4.52 are described below.

- **Decoding of the CCIR mode**

The CCIR mode ("Consultative Committee on International Radio", now "ITU-R"), used in Sweden and Turkey is a "Selcall" one. Therefore it is used to do "5 tones" selective calls. On reception of this sequence of 5 tones (5 characters), only one receiver will open its "Squelch", whereas for the other receivers the "Squelch" will remain closed. A CCIR code is composed of 5 characters among "0123456789ABCD" (as "0123D" for example).

It exists three sub-modes: the "CCIR1" one, the "CCIR2" (also called "CCIR7") one and the "PCCIR" one.

The receiver must be in FM 12 kHz in VHF or in UHF. Selective calls in CCIR can be found between 30 and 800 MHz, rather in Sweden and Turkey.

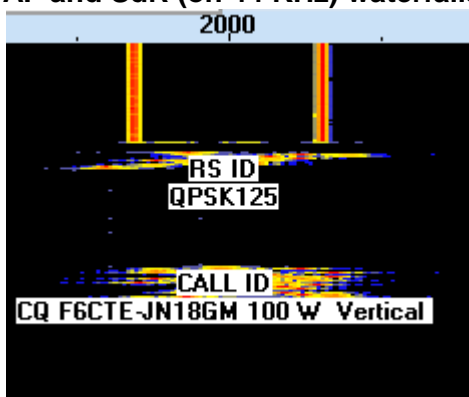
Limitation: the CCIR decoding function is only available during 5 minutes for limited Multispk versions (without user key).

- **Addition of the CCW-FSK sub-modes at 3 and 6 wpm, for experimentation**

It is reminded that the CCW-FSK mode derives from the Multispk CCW mode. It permits a more efficient decoding and a better Pmean/Ppeak ratio than in classical CCW (OOK). The essential difference is the transmission of a complementary morse signal, on a carrier situated at a 240 Hz distance, for example: morse signal at 1000 Hz, complementary morse signal at 760 Hz. This "shift" of 240 Hz is sufficient to separate the 2 signals for a human decoding . The 2 signals form a FSK modulation.

Lowest S/N: -19 dB at 3 wpm, -16 dB at 6 wpm -13.5 dB at 12 wpm, -10.5 dB at 24 wpm and -8 dB at 48 wpm.

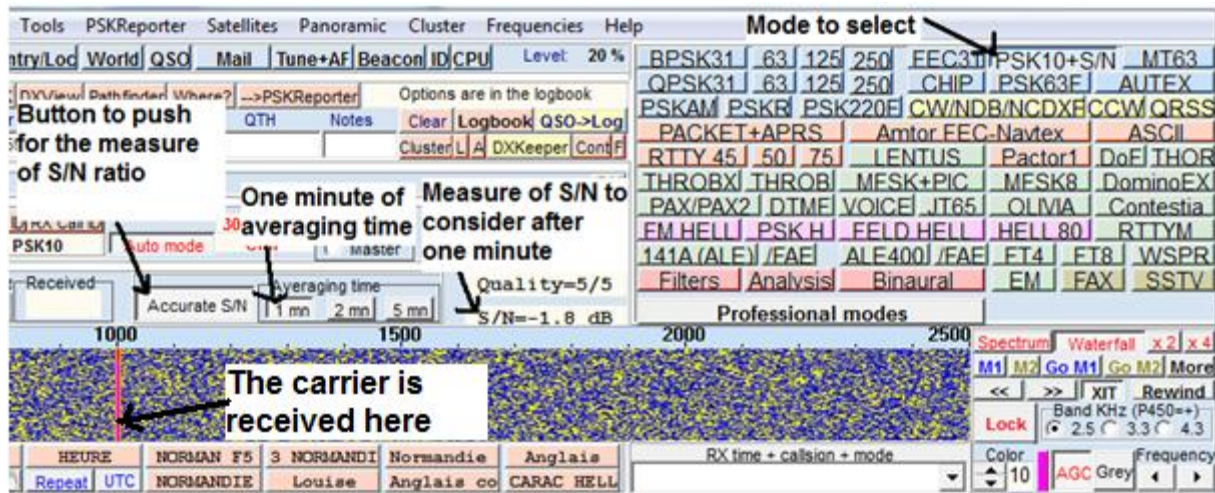
- Following an idea from Tony (K2MO), **the RS ID and the CALL ID are now displayed on the AF and SdR (on 44 KHz) waterfalls.** Example on the AF waterfall:



- **Accurate measure of the Signal to Noise ratio ("S/N") of a carrier**

By clicking on the mode button "**PSK10+S/N**", it can be accessed to the possibility to precisely measure the S/N ratio of the received carrier. The absolute accuracy is not the one of a laboratory. But the measure is sufficiently accurate to determine a difference of S/N ratio. This one can be used to determine the difference of gain between two antennas or the azimuthal gain of a directive antenna, for example.

See: http://f6cte.free.fr/Easy_determination_of_the_S-N_ratio_with_Multipsk.pdf



- For the Hams who want to test the **EM (Extended Message) mode**, look at this document: http://f6cte.free.fr/EM_mode_easy_with_Multipsk.pdf
- For the Hams who want to test an AUTEX mode (meeting between Hams), look at this document: http://f6cte.free.fr/AUTEX_easy_with_Multipsk.pdf
- **DGPS** : the Multipsk V.4.52 version is mainly based on the list V.13.5 (November 2024) from Alan Gale (G4TMV) https://www.ndblist.info/index_htm_files/worldDGPSdatabase.pdf
Thanks to him.
- The "**<-RX->**" button (bottom control bar) permits to enlarge the RX window, this in « RX only » modes.
- Update of the **AIRPORTS.TXT** and **VDL2_Ground_Stations.txt** files (for the VDL2 mode).
Thanks to Sergio.

Note about translation in Spanish of Multipsk.exe, Clock.exe and OMMMap.exe: the 4.51 version of Multipsk has been translated to Spanish by Joaquin (EB4Z), from French.

See: http://f6cte.free.fr/Translation_files.htm.

Moreover 2 documents have been translated in Spanish by Joaquin (EB4Z):

http://f6cte.free.fr/AUTEX_facil_con_Multipsk.pdf

http://f6cte.free.fr/Consejos_acerca_%20de_%20Multipsk.pdf

Reminder: it exists a translation **in Russian** (by Dmitrij) of Multipsk.exe (4.49), Clock.exe (1.11.12) and OMMap.exe (1.3). See http://f6cte.free.fr/Translation_files.htm.

73

Patrick