

# SSTV IN MFSK16 EASY WITH MULTIPSK (4.7)

## Introduction

In this document it will be found 2 forms (snapshots of Multipsk screen with indications to the « how to operate »):

- 1) How to transmit a picture,
- 2) How to receive a picture.

## About the help in Multipsk:

- \* the help chapter about the SSTV in MFSK16 is called « Description of the SSTV commands in MFSK16 mode »,
- \* for the contextual help, click on the right button of the mouse, with the focus over the mode button "Send color picture", for example (Multipsk 4.7),
- \* use also the button hints (wait a fraction of second over a button).

## Compatibility with other softwares proposing SSTV in MFSK16

The main difference is the RS ID which exists only, for instance, in Multipsk (among these softwares).

So if the picture is sent without RS ID, you might first tune the transmission (MFSK16 starts with a vertical trace which must correspond to the left blue bar on the waterfall).

## Main Specifications of SSTV in Multipsk:

Created by : Nick Fedoseev (UT2UZ) and Denis Nechitailov (UU9JDR) in 2003

### Description:

It is a SSTV mode without transmission of a synchronization ray, in color or in black and white mode, where the picture may be transmitted among MFSK16 text.

The picture format is not fixed as in classical SSTV but variable (limited to small pictures). Multipsk proposes to use the standard "320x256" to take advantage of the SSTV "workshop" and the stored SSTV pictures.

The band of frequencies used is 234,375 Hz (15 x 15,625 Hz), which is the width between extreme peaks of a MFSK16 transmission. The duration of a pixel is exactly 1 ms. In color mode, the colors are transmitted in the following order: Red, Green, Blue. In black and white mode, the black color corresponds to the lower frequency and the white color to the higher frequency.

To be recognized, the picture must be MFSK16 prefixed by:

- \* "Pic:320x256C;" for example for a color picture of 320x256 dimension whose transmission will last  $320 \times 256 \times 3 \times 0,001 = 246$  sec,
- \* "Pic:320x256;" for example for a black and white picture of 320x256 dimension whose transmission will last  $320 \times 256 \times 1 \times 0,001 = 82$  sec.

RX/TX screen Patrick LINDECKER (F6CTE) 4, avenue du Square BURES-SUR-YVETTE 91440 FRANCE

Help TCP/IP Mdem Oscillo Spectrum Transceiver Country/Loc World QSO Config Tune Program Beacon Exit

About Personal CPU Sampling License Clocks 16 bits Ident

1 Call ? Name N Freq Mhz View M MFSK1

Modes: RS ID Video ID QRGs RS ID detection Sound card

TX: MFSK16 MODE RX: MFSK16 5

TX frequency 951.5 Hz RX frequency 951.5 Hz Fr. difference 0.0 Hz Squelch 0

AFC Send color picture B/W

Filters Analysis Binaural Professional modes

200 500 1000 1500 2000 2500

In this yellow label, is given the percentage of the picture transmitted

If you prefer black and white pictures, click here (it needs much less time to be transmitted that color pictures)

Select the MFSK16 mode ("PIC" is worth for "PICTures")

Ouvrir

Regarder dans : RXTXMULTIPSK\_W95\_V4\_7 (320x256)

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DATA\_APRS  
DATA\_SYNOP  
FAE  
FAX  
MAPS  
QSO  
WORLD  
a.bmp  
ALE400.bmp  
ALE (141A).bmp  
Bouton.bmp  
Carré\_noir.bmp  
CW.bmp  
Disquette.bmp  
DTMF.bmp  
Header.bmp  
Header\_reduit.bmp  
HISTORIQUE\_RX.BMP  
HISTORIQUE\_TX.BMP  
HORLOGE.BMP  
MFSK\_SSTV\_RX.bmp  
Mini\_Map.bmp  
Port.bmp  
PSK125.bmp  
PSK250.bmp  
Variations.bmp  
VOICE.bmp

Nom du fichier : Port.bmp

Fichiers de type : BMP & JPG files

Ouvrir Annuler

This button must be pushed so as to permit the auto-synchronization of the RX

Click on this button to choose the color picture among the ones proposed here

Click this button ("Open") after selection of the picture

Click on "TX" to send the picture. After complete transmission (see the yellow label), click on the button "RX"

Snapshot Print Fonts Clear Double Auto TX Height 33 TX STOP RX 24/01/08 16:09:48 UTC SpotC. Off Commander

ILa Pic:320x256C; eEtZr

Means: Picture in 320x256 format, in color  
The format is free.

SSTV modulation

MFSK16 modulation

Before any reception, this button must be pushed so as to guarantee a perfect tuning

There is no line synchronisation so you must adjust slant and shift during reception

The picture is not a digital one, so the quality is the one expected for a 250 Hz bandwidth...

Note that MFSK16 mode must be pushed ("PIC" for "PICTures")

This window appeared automatically on reception of "Pic:320x256C" sent in MFSK16