

THE ARQ FAE BEACON EASY WITH MULTIPSK (4.11) in 141A and ALE400

Modified the 21 of December 2017.

Introduction

This document explains how to use the ARQ FAE beacon and, for a Ham, to connect the beacon (snapshots of Multipsk screen with indications to the « how to operate »). This beacon will be used in 141A and ALE400 modes.

It is based on ALE400 and applicable to 141A (except that in 141A, there is no need to manage the Slave/Master mode, the AFC and the RS ID detection).

Keep in mind that the basic ARQ FAE functions in 141A and ALE400 modes are described in :

http://f6cte.free.fr/ARQ_FAE_in_141A_and_ALE400_easy_with_Multipsk.pdf

Notes about the help in Multipsk:

- To bring up the text help (contextual one), click on the right button of the mouse, with the focus over the mode button "ALE400", for example).
- Also use the button hints (wait a fraction of second over a button).

Abstract of the ARQ FAE beacon use

With this function, a beacon message (45 characters maximum) is sent regularly (with an interval of time defined by the user), to other Hams.

It will be received, for example, the following frame:

"BCN F6CTE Hello! PSE answer with the <Selective call>"

Any Ham will be able to answer with a selective call (the addressee being the beacon). On reception of the beacon frame, the <Selective call> callsign editor will be automatically filled with the beacon station callsign. So the Ham will have only to click on the button "Selective call in ARQ FAE... Call-->" to initiate a connection with the beacon, to do a QSO, a transmission of mail with or without file or APRS position (see the previous paragraph about Selective call).

At the end of the QSO, the beacon, automatically, will start again the regular message transmission.

Preparation of the ARQ FAE beacon in ALE400

The screenshot shows the RX/TX screen of a software-defined radio interface. At the top, the title bar reads "RX/TX screen Patrick LINDECKER (F6CTE) 4, avenue du Square BURES-SUR-YVETTE 91440 FRANCE". The main interface is divided into several sections:

- Top Panel:** Contains menu items like "Help", "TCP/IP", "Mdem", "Oscillo", "Spectrum", "Transceiver", "Country/Loc", "World", "QSO", "Config", "Tune", "Program", "Beacon", and "Exit". It also shows various status indicators and a "Licence" section.
- Mode Selection:** Shows "TX: ALE400" and "RX: ALE400". The "MODE" is set to "AFC".
- Frequency and Sounding:** TX frequency is 1625.0 Hz, RX frequency is 1625.0 Hz. Sounding is set to "Sounding (TW)".
- Right Panel:** A list of modes including BPSK31, QPSK31, PSKAM10, PACKET+APRS, RTTY 45, THROB, PAX/PAX2, FM HELL, Filters, Professional modes, FEC31, CHIP, PSK220F, Amtor FEC-Navtex, Amtor ARQ, Factor1, ALE400 mode, and HF FAX.
- Annotations:**
 - "Push on 'Aux. functions'" points to the "Aux. functions" button in the top panel.
 - "Check 'Master'" points to the "Master" checkbox in the "Aux. functions" window.
 - "Push on ARQ FAE" points to the "ARQ FAE" button in the top panel.
 - "Push on 'AFC'" points to the "AFC" button in the top panel.
 - "'Aux. functions' window" points to the "Auxiliary functions" window.
 - "ARQ FAE beacon panel" points to the "ARQ FAE beacon" status in the "Auxiliary functions" window.

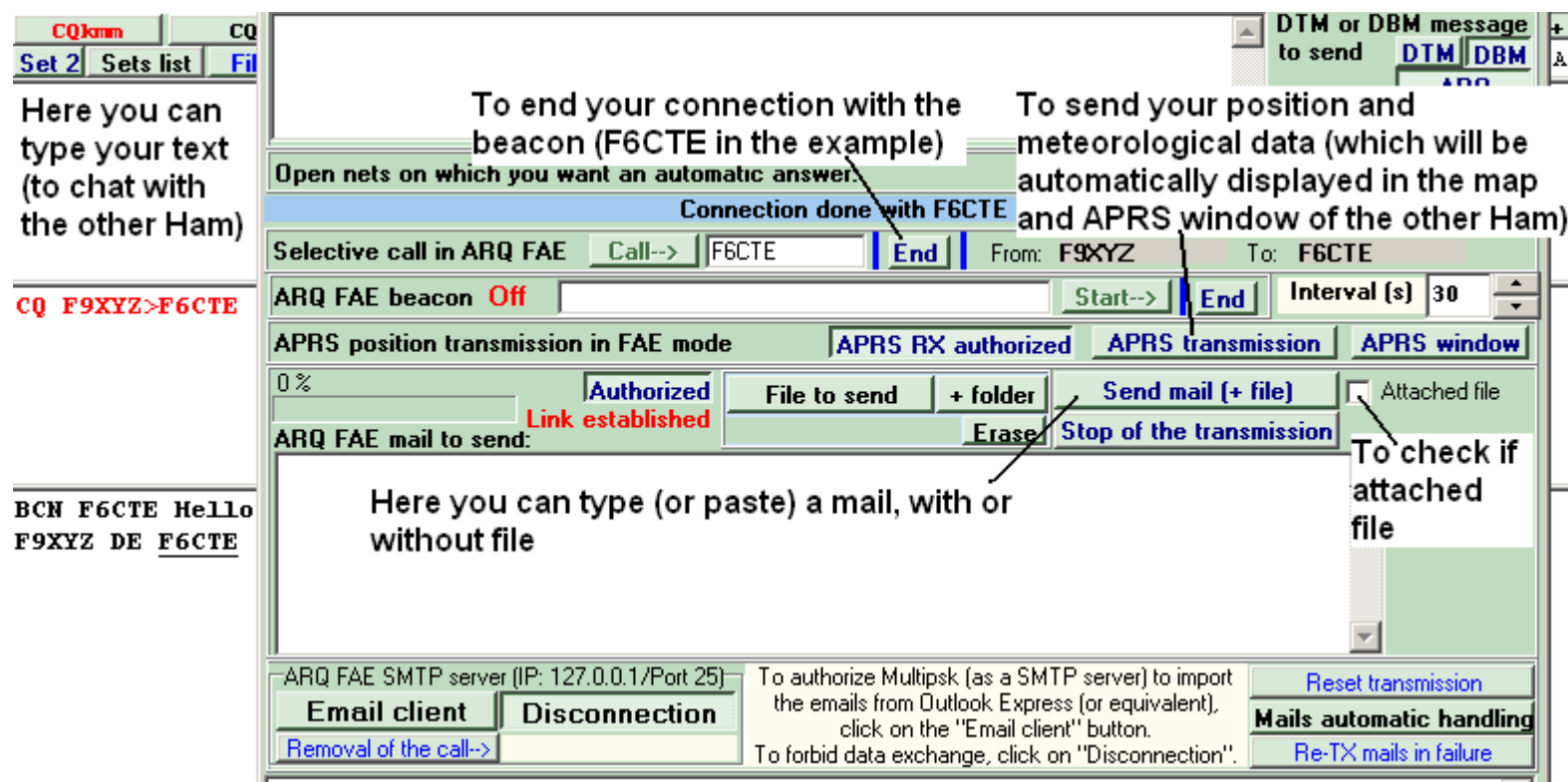
Start up of the ARQ FAE beacon in ALE400

This close-up shows the "ARQ FAE beacon" section of the "Auxiliary functions" window. The status has changed from "Off" to "On". The message to be sent is "Hello! PSE answer with the 'Selective call'". The interval between messages is set to 30 seconds. Annotations include:

- "The beacon state is 'On' now" pointing to the "ARQ FAE beacon On" status.
- "The message regularly sent by the beacon (45 char. maximum)" pointing to the message text.
- "The beacon permits to regularly send a message. On reception of the beacon message, the other Ham can answer clicking on the button 'Call-->' of the 'Selective call in ARQ FAE' panel" pointing to the "Call-->" button.
- "Push on Start-->" pointing to the "Start-->" button.

After the connection, you can (without disconnection):

- * conduct standard QSO,
- * send your APRS position
- * send an email with or without file transmission in ARQ FAE



For details, see the document « ARQ_FAE_in_141A_and_ALE400_easy_with_Multipsk.doc » downloadable at http://f6cte.free.fr/ARQ_FAE_in_141A_and_ALE400_easy_with_Multipsk.doc.

The only difference with this document is that you must stay in « Slave » mode as the beacon is the Master of the frequency.