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QO-100 Multimedia Beacon

This beacon can be received in experimental mode on 10489.580 MHz, at irregular times. A high-speed modem version 0.8 or newer is required.

The multimedia beacon uses the streaming mode of HS modem to transmit several data streams at the same time. The individual data streams are mixed in a time grid of 250ms, so that a simultaneous impression is created for the recipient.

At the current status 5 streams are transmitted:

- 1. Narrow band transponder spectrum and waterfall
- 2. Wide band transponder spectrum and waterfall
- 3. DX Cluster (all frequencies, selectable)
- 4. CW skimmer (QO-100)
- 5. Amsat Bulletin, breaking news



The data streams are fed into the multimedia HS modem beacon at the Amsat-DL ground station and sent to the QO-100. At the receiver, the data streams are separated automatically, and operation is very simple.

Receiving the QO-100 multimedia beacon

If you want to receive the beacon and see the information, do the following:

- 1. Tune the receiver with HS modem running to the beacon
- 2. Set the HS modem to 8APSK 7200 bps
- 3. check that your RX filter bandwidth is at maximum (3.2kHz or even more), HSmodem has its own filters and does not need additional filters in the receiver.
- 4. Fine-tune the frequency while observing the 100Hz subcarrier until the synchronization is established.
- Open the file QO100info.html and you will see the information transferred.

Open the file QO100info.html

this file is transmitted via the beacon every few minutes.

If the file QO100info.html has not yet been received, it looks like this:



As soon as the file Q0100info.html has been received, an additional button is displayed:



If you click on this button, the web browser is opened and the file QO100info.html is displayed.

if the file Q0100info.html has already been received

Then it is already saved on the hard drive and you don't have to wait any longer. Press "open RX files". Here you can find QO100info.html and open it with a double click.

Using QO100info.html

This is how the beacon QO100info.html is displayed in the browser:



A few seconds after opening the file in the browser, a connection to the HS-Modem is established and "Connected to local HSModem" appears in green at the top right. If this message does not appear, HS-Modem is not running or may have to be restarted. With a Windows 10 PC you may be asked whether you want to release port 40134, which you also have to do so that the data can be forwarded to the browser.

The beacon can now be viewed, no operation is required, the information is constantly updated. Filters are available for the DX cluster messages that can be set as required.

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