Using PSK Reporter with FreeDV

and Apache Labs ANAN-10E

by Rick Peterson, WA6NUT December 2020

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1 Introduction

The FreeDV software can be configured to automatically spot received FreeDV signals to the PSK Reporter website. The FreeDV software reads the received signal frequency from the local transceiver CAT interface, and sends it to PSK Reporter via the UDP Port (Port 300).

But some transceivers (such as the author's Apache Labs ANAN-10E) do not have an RS-232 CAT interface for use with the FreeDV software. If a transceiver with a RS-232 CAT interface (such as the author's Ten-Tec Omni VII) is available, it can be used with the FreeDV software to send the required receiver frequency information to PSK Reporter.

2 Configuring the Omni VII for PSK Reporter

Press the MNU button, and use the Tuning knob to scroll to TRANSMITTER. Use the MULTI knob to select OFF. Exit the menu by pressing the MNU button. Tune to 14236 kHz. Connect the RS-232 cable to the DB-9 "Serial" connector at the rear of the Omni VII.

3 **Configuring FreeDV for Normal or PSK Reporter Operation**

Tools --> PTT Config

Hamlib Settings:

Rig Mode = Ten-Tec TT588 Omni VII (or your transceiver) Serial Device = COM7 (or your PC's setting for your transceiver) Serial Rate = 57600 (or the setting for your transceiver)

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Serial Port Settings:

PTT Port:

COM7 (or your PC's setting for your transceiver)

Signal polarity:

Use RTS (or the setting for your transceiver) RTS = +V "

Tools --> Options --> Reporting

PSK Reporter: "Enable reporting" checkbox checked Enter your callsign and grid square

Tools --> Options --> UDP

UDP Messages: "Enable UDP Messages" checkbox checked UDP Port Number = 3000

4 Settings for Normal or PSK Reporter Modes

Normal Mode (FreeDV or FreeDV+ TX/RX)

USB-to-Serial Cable connected from PC to modified MFJ-1204

Tools --> PTT Config

"Use Serial Port PTT" checkbox checked

PSK Reporter Mode (FreeDV or FreeDV+ RX only)

USB-to-Serial Cable connected from PC to Omni VII RS-232 cable

Tools --> PTT Config

"Use Hamlib PTT" checkbox checked

(Status can be checked by clicking on FreeDV "PTT" button. Omni VII green "RX" LED should extinguish)

5 **Operation**

Note that the received station can be spotted to PSK Reporter only if their callsign was displayed in the FreeDV text box. FreeDV will report to PSK Reporter only if the received station has entered <u>only</u> their callsign at Tools --> Options --> Reporting --> Txt Msg in their FreeDV app. More information in the text message will confuse the receiving station's FreeDV text decoding, and the receiving station may be unable to post the spot to PSK Reporter.

The URL for PSK Reporter is: <u>https://pskreporter.info/pskmap.html</u>

At the top of the PSK Reporter page, select "using FREEDV."

If the preceding instructions under Tools --> Options --> Reporting and Tools --> Options --> UDP are implemented on your home PC, you can use that PC to report FreeDV stations heard on a Web SDR to PSK Reporter, without frequency information from a transceiver's RS-232 port. The received station's icon will be shown in black on the PSK Reporter map, indicating that the frequency is unknown.

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