Using the "Download Config" and "Upload Config" Features

This new feature pair, accessed from the modem's CONFIG menu (beneath the Select pushbutton), allows the operator to send (Upload) the modem's current "configuration settings" (user settings and macro strings) to a text file on the USB Flash Drive; edit this text file on a PC; and then load (Download) that modified text file into the modem. This is a great way to create macro strings offline and save them for later reminder or modification. This is a very convenient way to ...

- Send the modem's current configuration parameter settings and the current macro strings (found under the Function keys F1-thru-F7) as a text file to the USB thumb drive;
- Edit all of the above on the PC by plugging the USB thumb drive into the PC; and
- Load the modified text settings back to the modem by plugging the USB flash drive into the modem and "Downloading" the config.txt file.

The best way to use the new Download/Upload capabilities ...

1) Download the blank template to your PC from http://www.nue-psk.com/software/CONFIG.TXT (right-click the link and save file to a known location on your computer. The file is also shown at the end of this section.)

2) Open the **config.txt** file on your PC using the WordPad text editor. WordPad can be found in the Start->Programs->Accessories location on your computer. (The Microsoft NotePad text editor produces unexpected formatting problems for us.)

3) Edit the **config.txt** template to reflect your preferences for the modem. You can change the text lines in the template to reflect your favorite mode, your callsign, and other settings that you would like the modem to have when you turn power on each time. Additionally, and most powerfully, you can edit and manage the text strings used as the F1-through-F7 macros on the modem. For example, changing one word in Macro 5 (F5) is much easier to do by editing here on the PC than by re-entering the entire string anew with the modem's keyboard.

Editing Config.txt

It is very important to keep several in mind when editing the **config.txt** file ... The Instructions written out at the top of the file, briefly describing how to successfully edit the various lines. Read these instructions carefully. In short ...

1) You can ONLY edit the text on each of the 15 lines **after the colon <u>and</u> the space**;

2) The ONLY <u>allowable text</u> after the colon+space on lines 1-thru-8 are shown in the parentheses for that line. You must enter the desired option exactly as shown, or the selected edit will not be put in place when the file is later Downloaded to the modem.

3) You MUST be sure to retain the line termination character "|" at the end of each macro string (lines 9-thru-15). This is the "pipe" character typically located on the right side of one's keyboard as a shift character for the backslash key. Failure to retain the this special character at the end of the

macro string will case a run-on (merge) of the two adjacent macro strings when loaded back into the modem;

After edits have been made, save the file to your computer using the same filename (i.e., you must keep the same filename **config.txt**), and copy that **config.txt** to your USB thumb drive.

4) Load the **config.txt** file into your modem -- Plug your thumb drive into your modem's USB port and in the CONFIG menu, dial up the <u>Download</u> **Config** menu item and select Start Download. See the modem port LED blink for perhaps about 3 seconds. The modem will then automatically reset and re-power up with the new (edited) configuration parameters and/or macro strings in place. They are automatically "saved to EEPROM" such that each time the modem is started up in the future, the new settings will be in effect.

Upload Config

The <u>Upload</u> **Config** feature is a lesser-needed capability that copies the modems config settings and macro text strings to the USB thumb drive. One could use this as a starting point for making text edits as described above, instead of using the blank template to start with. However an <u>updated "C02" firmware file</u> needs to be loaded into the USB chip, and a <u>hardware modification is needed</u> on the modem pcb for this feature to work for modems purchased prior to Feb 1, 2010. See the web page **Using the USB** Card (http://www.nue-psk.com/usb/using.html) and follow the steps described in the section **Installing the USB Card** for the hardware mod, and the section **Programming the USB Card** for installing the C02 firmware on the USB chip.

Note that the **Upload Config** command **is completely optional** and the modem will work just fine even if you don't make the hardware modification. Of course you won't have the ability to send the modem's config and macro strings <u>to</u> the thumb drive, but most people (including modem designers Milt and George) <u>only use the</u> <u>**Download Config**</u> feature to get the edited **config.txt** file from the PC into the modem. This is the most common and most useful aspect of the feature-pair.

All new modems going out the door here with USB cards, and those that have the Full Factory Upgrade made, will indeed have the extra signal wire and the updated "C02" USB chip firmware. This will enable those new modem users to use the **Upload Config** feature as well as future features coming downstream.

However, if you chose to make the optional hardware modification, you will be able to use the **Upload Config** feature, and at least one other feature coming soon -- support for a USB printer. So perhaps making the simple modification when convenient, or perhaps sending it back to us to do the low-cost mod, would be a good thing to plan on doing. Once the hardware modification is done to support **Upload Config**, you will be able to send the config and macro text to the USB thumb drive ...

1) Place the thumb drive in the modem's USB port.

2) Selecting **Upload Config** from the CONFIG menu. (Press-and-hold the Select pushbutton for a couple seconds, release and turn dial to Config Upload, and tap the Select pushbutton to initiate the feature.)

3) See the USB port LED blink rapidly for about 15 seconds while the modem's parameters and macro strings are written to the **config.txt** text file on the USB thumb drive.

4) When the blinking has stopped and control is returned to the modem's LCD screen, remove the USB thumb drive and place into the USB port of your PC. You can save this file away for safe keeping or use it (instead of the Template) as a starting point for making some edits.

Default Template for Config.txt File

```
-----------------------------------------------------------------
NUE-PSK CONFIG
-----------------------------------------------------------------

Configuration file for the NUE-PSK Digital Modem for device settings and macro strings.

DESCRIPTION ... This file is generated by the 'Upload Config' selection in the
modem's CONFIGURE menu, and is written to a USB flash drive inserted into the modem.

CONFIG.TXT ... This file reflects all the current settings of the modem, and may be
modified as desired on a PC by using a simple text editor like Microsoft WordPad.

EDITING ... Editing this text file must be done very carefully by changing characters after
the colon and space. The options available for each field are listed in parentheses
for each field and must be entered exactly as shown. Special control characters are
entered into macro strings as <TXON>, <TXOFF>, <MYCALL> and <THEIRCALL>. For example ...
<TXON>Thanks <THEIRCALL>. QTH HERE IS BALTIMORE, de <MYCALL><TXOFF>
Be sure to leave the special termination character '|' in as the last string character.

LOADING INTO MODEM ... The settings and strings contained in the CONFIG.TXT file may loaded
into the modem by placing the file onto the flash drive, inserting it into the modem,
and then selecting 'Download Config' in the modem's CONFIGURE menu.

RESULTS ... If the modem is able to successfully read and transfer all settings to the modem,
'Exit' will be displayed and pressing the Select pushbutton will bring you back to the
normal operating mode of the mode with the new settings in effect. Otherwise, the modem
will beep will beep and the Download Config operation will terminate.
-----------------------------------------------------------------
1) My Call: N2APB

2) Log Fname: NUE-PSK.txt

3) PGA (x1,x5,x16,x32): x16

4) Mode (BPSK,QPSK,QPSK/R,RTTY): BPSK

5) BackLight (ON,OFF): ON

6) SQLCH (25, 50): 25

7) AFC (ON,OFF): ON

8) CWID (ON,OFF): OFF

9) Macro 1: <TXON>CQ CQ CQ CQ CQ de <MYCALL> <MYCALL> <MYCALL> PSE K <TXOFF> |

10) Macro 2: My Macro 2 |

11) Macro 3: My Macro 3 |

12) Macro 4: My Macro 4 |

13) Macro 5: My Macro 5 |

14) Macro 6: My Macro 6 |

15) Macro 7: My Beacon Macro |
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