

USER INSTRUCTIONS FOR NASA NAVTEX ENGINE

INTRODUCTION

The NASA Navtex Engine is entirely self contained, and sends received Navtex signals as RS232 data to any computer equipped with an RS232 serial port. It is best used on personal computers (PCs) running the NASA custom software supplied. Alternatively, its output can be displayed by Tsunamis99, the Terminal utility supplied with Windows 3.1 and Windows 3.1 1, or the HyperTerminal utility supplied with Windows 95 and 98.

GETTING STARTED

Plug the NASA Navtex Engine into a spare 9-pin COM port connector on the PC. Place the antenna unit well clear of any sources of RF interference including the PC. Suitable positions are usually to be found only outside buildings and clear of metal structures.

SETTING UP AND RUNNING PC SOFTWARE

NASA SUPPLIED SOFTWARE - Any Windows operating system

Place the supplied floppy disc into floppy drive A or B. From Program Manager (Win 3.1x) or from the START button (Win 95/98), click on RUN and enter (without the quotes) "A:AINSTALL" if the floppy disc is in drive A, or "B:BINSTALL" if the floppy disc is in drive B. Press RETURN key. The system will install all the required programs in Drive-C then run and identify a valid and unused COM port (between COM1 and COM4) for use by the program. A message is show on -- first installation telling which COM port has been selected. If none is available, a warning is shown, and system resources must be changed to make a COM port available to the engine software. Lack of an available COM port is usually caused by another program (such as the mouse and/or a modem) using all the available ports.

The program comes on in its normal receive screen using the allocated COM port. If the RS232 connector is plugged into the allocated port, a sign-on message is shown when the power is applied to the Navtex Engine.

The buttons on the receive screen offer facilities to select the desired Navarea, to select the stations to recorded and ignored, and the message types to be recorded and ignored. Facilities for viewing and deleting recorded messages are also available.

GENERIC OR COMMERCIAL SOFTWARE OPERATION

If it is desired not to use the supplied software to view the Navtex Engine data output, it is possible to use Windows standard facilities as described below.

WINDOWS 3.1/3.11

Double-click on the Terminal icon in the Accessories menu. Select Settings, and then Communications. In the Communications window, click on the 9600 Baud rate button, the 8 Data Bits button, the parity None button, and the Flow Control None

button. From the Connector list, select the appropriate COM1: or COM2: button to match the connector on the back of the PC. (If only one connector is available it is almost certain to be COM 1 .) Click OK, and then Save the file with your name so the setting can be retrieved whenever Terminal is run by Opening the file again.

WINDOWS 96/98

From the Start menu, click on programs/Accessories/Communications/HyperTerminal Select Hyperterm.exe, and then enter a name for the connection to the Navtex Engine. Choose an icon, and click OK. In the Connect To box, click on the Connect using listbox, and select Direct to Coml. Click OK, and then select 9600 in the Bits per second list, accept 8 Data bits, Parity None, stop bits 1, and Flow control None. Click OK to accept all these settings for the connection name you specified for the Engine connection. They will automatically be restored whenever the HyperTerminal connection is restarted.

Tsunamis99

Double-click on Navtex Receiver, select the Com port to which the Engine is connected, and ensure that 9600 bits/second, 8 data bits, No parity, 1 stop bit, and flow control None are selected.

RUNNING THE NAVTEX ENGINE

Plug the 12-Volt line into the power socket on the Engine Connector and switch on power. A test message is always sent by the Engine whenever it is powered up to confirm its correct operation and reception by the PC RS232 software. If no Welcome and test message is seen on the PC, check the settings of the software and that the correct COM port has been selected.

Once the Welcome and test messages have been sent, the Navtex Engine is ready to receive all Navtex signals. In Windows 95 and 98, the PC can be used for other tasks while the Navtex Engine software runs in the background.

SPECIFICATION

The NASA Navtex Engine is supplied with the Antenna Unit, a Com Port power plug, a Floppy disc containing all the required P(C operating software, and a 12-volt power cable.

5 18kHz dual conversion superhet receiver

Power supply 12 VDC (10 - 15 Volts), 25 mA

Output: forward error-corrected (FEC) NAVTEX data as Serial ASCII at 9600 baud, &bits, no parity, 1 stop bit, without handshaking.