DIGITAL YACHT

TECHNICAL NOTES

Article Number -   00064-2015

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Article applies to - AIT2000 and AIT3000 Transponders

ISSUE: Inhibiting GPS Data on NMEA2000

It has been reported that in some installations of our AIT2000 or AIT3000 Class B transponders with the latest range of Raymarine a, c and e Series Multi-Function Displays, that the Raymarine MFDs will display an "AIS Position Lost" alarm.

This only occurs on installations where our AIT2000 or AIT3000 are connected to the Raymarine MFD via SaaTalkNG (NMEA2000) and a Raymarine SeaTalk 1 to SeaTalkNG converter (E22158) is fitted. Under normal circumstances, if you connect one of our AIT2000 or AIT3000 transponders to a Raymarine MFD via SeaTalkNG (NMEA2000) the MFD will use its own internal GPS as the position source and receive the AIS target information from the transponder.

When a Raymarine SeaTalk 1 to SeaTalkNG converter (E22158) is fitted to the network, the MFD stops using its internal GPS and tries to use a GPS source on the SeaTalkNG network. As our transponders are outputting the Rapid Update GPS PGNs on the NMEA2000 network, the Raymarine sees this as a GPS source and tries to use it but then reports an "AIS Position lost" alarm because the GNSS PGN that provides GPS status information is not being received.

SOLUTION:

The easiest solution to this problem is to inhibit the output of GPS data by the AIT2000 or AIT3000 on the SeaTalkNG (NMEA2000) network. This involves sending the transponder a special configuration command using the proAIS2 software that we supply with the transponder - used for programming and diagnosing the transponders.

Run the proAIS2 software on a suitable PC/Mac connected to the AIT2000 or AIT3000 via USB. Ensure the transponder is detected and selected by proAIS2 and click on the "Connect" button, you should see all of your boat's data appear on the proAIS screen.

Now click on the Serial Data tab and you will see the window change to that shown in Figure 1.

Copy the special command below in to the Send Data box at the bottom of the proAIS window, as shown in Figure 1.

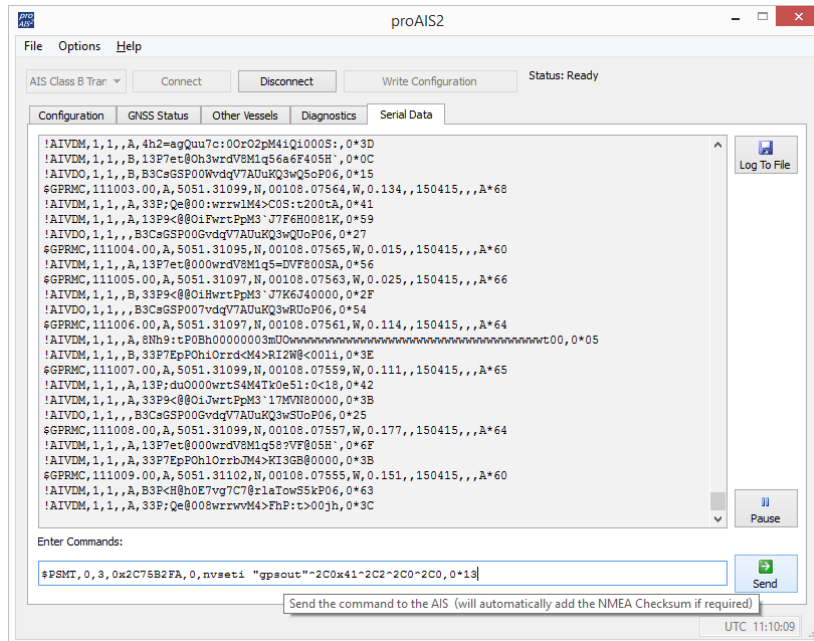**$PSMT,0,3,0x2C75B2FA,0,nvseti "gpsout"^2C0x41^2C2^2C0^2C0,0*13**

Figure 1

Now click the "Send" button and you should immediately see an acknowledgement message appear in the serial data window that is a repeat of the special command we sent, but with 255 in the first field of the message which is the acknowledgement string – see the red box below in Figure 2 that shows the acknowledgement message.
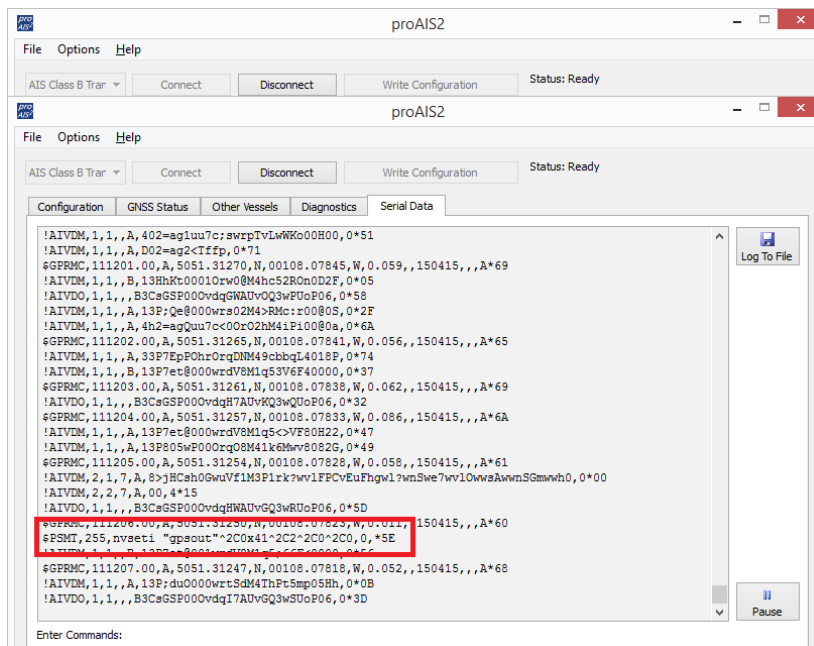

Figure 2

Assuming that the acknowledgement message appeared OK, then the transponder has accepted the new configuration and you just need to power cycle the transponder for the change to take affect. Don't forget to turn off the 12/24v DC supply to the transponder **and also** unplug the USB cable to completely power down the unit.

As soon as the transponder powers up again it will no longer be outputting GPS data on to the NMEA2000 network and the Raymarine MFDs should work normally using their own GPS for the boat's position.