

## **Geometrics Knowledgebase**

### **Recording GPS data with the G-858 Cesium Magnetometer**

The G-858 can be used with any GPS that can be configured to output serial data in the industry standard data format (NMEA 0183). The G-858 console will log this data stream through a null model adapter. After download, this data can be processed along with magnetic field measurements with our MagMap2000 software to provide a map or data file with the magnetometer's measurements positioned with the GPS values.

Two factors are important in the selection of the GPS receiver that will be used with the G-858: 1) the magnetic signature of the receiver and 2) the ability to configure the receiver to output only a particular NMEA 0183 sentence. We recommend using GPS hardware components that generate less than 4 nT of signal at a distance of 30 cm from the G-858 sensor. And the only data sentence that MagMap2000 needs is the \$GPGGA sentence; there are many others and if they're transmitted, the G-858 will automatically record them, wasting console memory in the process. When configuring the GPS for the G-858 console set the GPS RS232 parameters to 9600 baud, 8 databits, No parity and 1 Stop bit.

<http://support.geometrics.com/kb/questions.php?questionid=51>