



The G-858 MagMapper uses a graphical interface to make survey design and data acquisition quick and efficient. Various modes of operation allow the user to custom design a survey grid for their particular needs. The operator also has the ability to view his/her position on the grid and the current data profile during the survey. Sensitivity, resolution, and recording rate of the cesium magnetometer are user selectable. G-858 data acquisition offers either continuous or discrete station recording. The high sampling rate of the instrument in continuous mode allows the operator to survey an area at a fast walking pace. A wider search radius can be achieved by using a gradiometer configuration. As a result, overall costs are inherently lower while data quality remains high.

The G-858 is designed to interface easily with standard computers and peripherals. Geometrics encourages clients to provide their own processing computer hardware. Upon the client's request Geometrics will provide a complete and fully integrated processing station at a nominal price.



Features

- in-field coordinate mapping system
- high sensitivity: detects single drum at 3m
- Immediate User Feedback: display coordinate grid, survey direction and 5 stacked profiles of mag data
- easy to use: produce hard-copy maps within minutes of connection to PC

options: simultaneous vertical or horizontal gradiometer, GPS positioning, target analysis software

The G-858 MagMapper system comprises a belt-mounted display/logging console connected to a cesium sensor mounted on a handheld counterbalanced staff. The console contains electronics to acquire magnetic field data with position and display it on an LCD screen for review and edit. The console stores high volumes of data in memory. Following the survey the data is transmitted at high speed to a processing computer for detailed analysis.

A basic software package - MagMap, is supplied as an integral part of the G-858 system. It provides:

- - Transfer of the raw data to the client PC;
- - Standard corrections for position errors, transients, and time varying errors (diurnal);

- Repositioning, linear interpolation and format corrected data into X,Y,Z ASCII columnar values for use with various contouring programs

Specifications

<p>Operating Principle: Self-oscillating split-beam Cesium Vapor (non-radioactive Cs133) with automatic hemisphere switching.</p>	<p>Heading Error: +/- 1 nT</p>
<p>Operating Range: 17,000nT to 100,000 nT</p>	<p>Gradient Tolerance: > 500 nT / inch; >20,000nT / meter</p>
<p>Operating Zones: For highest signal-to-noise ratio, the sensor long axis should be oriented at 45°, +/- 30° to the earth's field angle, but operation will continue through 45°, +/- 35°.</p>	<p>Data Storage: Nonvolatile RAM with capacity for 8 hrs. of Magnetometer time, event marks, field notes, location, or 3 hrs. of Gradiometer and GPS at maximum sample rates.</p>
<p>Sensitivity: 90% of all readings will fall within the following Peak-to-Peak envelopes:</p> <ol style="list-style-type: none"> 1. 0.05nT at 0.1 sec cycle rate 2. 0.03nT at 0.2 sec cycle rate 3. 0.02nT at 0.5 sec cycle rate 4. 0.01nT at 1.0 sec cycle rate 	<p>Visual Display: A 320x200 graphic LCD, daylight visible with selectable outputs for:</p> <ol style="list-style-type: none"> 1. Data display 2. System setup functions 3. Survey setup functions 4. Survey monitoring 5. System diagnostics
<p>Data Output: Three wire RS232 standard serial port, optional continuous real time transmittal of data via RS232 to PC. Total memory output transfer time less than 5 minutes at 115,200 baud</p>	<p>Battery Life:</p> <ol style="list-style-type: none"> 1. 24 VDC rechargeable gel cell, 6 hrs. Magnetometer or 3 hrs. Gradiometer usage. 2. Internal backup battery for clock and nonvolatile RAM
<p>Operating Temperature: -25° C to +50° C (-13° F to +122° F)</p>	<p>Water Tight: To 3 ft. (0.9 m) depth</p>
<p>Shock: Drop 3 ft. on a hard surface without damage.</p>	<p>Console Magnetic Effect: Less than 1nT at 4 ft. from sensor.</p>

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