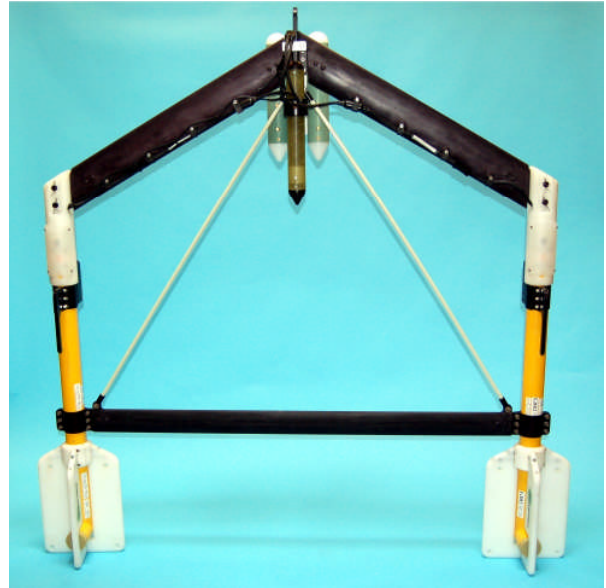


G-882TVG CESIUM MAGNETOMETER & TRANSVERSE GRADIOMETER

- **Marine Search Applications for UXO, pipelines, lost objects with Multi-Sensor Array Capability**
- **High Sensitivity – 0.004 nT/sq-rt-Hz RMS with dual CM-221 Larmor Counters**
- **Very Low Heading Error – ± 0.25 nT over 360° equatorial and polar spins**
- **Versatility – CM-221 counter includes 8 channel 12 bit A to D converters for real time internal diagnostics, digital data stream concatenation, and short, long or telemetry over coax options**
- **Reliability and Ruggedness – Cesium magnetometers never need be returned to factory for calibration or tuning. Designed for tough environmental conditions and high “G” loads**
- **Gradiometer arrays offering simultaneous operation of up to 8 separate sensors using the designed-in multi-sensor data concatenation of the CM-221 internal counter**
- **Geometrics offers complete turnkey systems including tow cables, gradiometer wing, digital data acquisition systems with real time anomaly detection, GPS navigation and post acquisition data processing software and training.**



The Geometrics Model G-882TVG Transverse Gradiometer system mates the well-proven high-performance cesium sensor with dual high sensitivity and high speed CM-221 Larmor Counters. This advanced integrated magnetometer system provides unmatched versatility in performance, with a wide sensor separation for maximum target detection efficiency and survey cost effectiveness.

The system comprises a transverse wing and two G-882 Cesium Vapor magnetometer fish with stabilizer weights and fins. Tow cables may be up to 150m in length with standard power supply or up to 700m with a high capacity voltage sense supply. Depth sensors provide gradiometer attitude and depth information to the operator depth and an echo-sounder altimeter provides height above sea floor for proper system flight control.

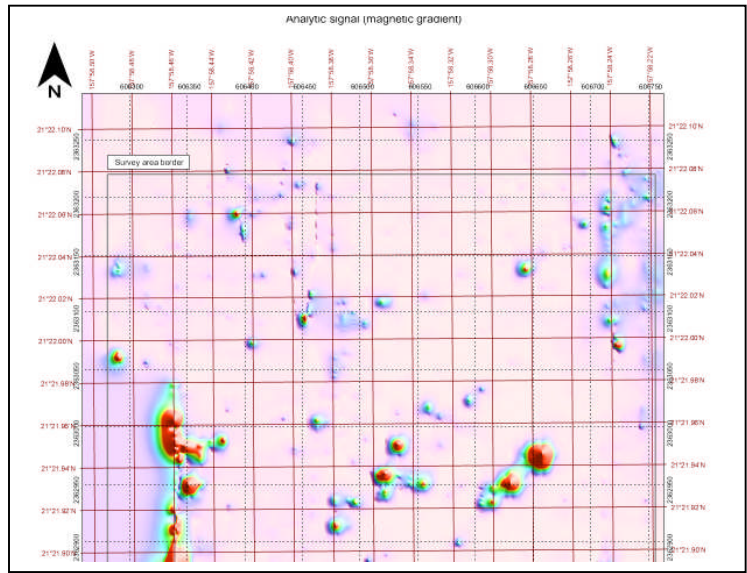
Dual sensors are synchronized to 1ms sampling and data is transmitted via RS-232 for recording by any standard PC computer using our industry standard MagLogLite software. High sample and data transmission rates (up to 40 samples per second) are standard.

The G-882G provides sensitivities of 0.004 nT/ $\sqrt{\text{Hz}}$ RMS or approximately 0.01 nT P-P at 10 Hz, selectable via software command for detection of the smallest anomalies. MagLog software computes the transverse difference for display and analysis in real time, using the customer supplied GPS for interpolation and target positioning.

The system's high performance is excellent for the detection and delineation of cables, pipelines, environmental, archaeological or military UXO and EOD targets.

Software

Geometrics supplies MagMap2000 and MagPick with each system for analysis and interpretation of total field and gradient data. Analytical signal is computed from the transverse gradient, longitudinal time gradient and computed vertical gradient to give a time-variation free data set for contouring and plotting of anomaly targets. Simultaneous dual inversion routines in MagPick produce a located target worksheet with models including object latitude-longitude position and depth of burial. Download <ftp://geom.geometrics.com/pub/mag/Software/Posters.zip> for more information



MODEL G-882TVG MARINE CESIUM GRADIOMETER SPECIFICATIONS

OPERATING PRINCIPLE:	Self-oscillating split-beam cesium vapor (non-radioactive)
OPERATING RANGE:	20,000 to 100,000 nT
OPERATING ZONES:	The earth's field vector should be at an angle greater than 10° from the sensor's equator and greater than 10° from the sensor's long axis. Automatic hemisphere switching.
SENSITIVITY WITH CM-221 COUNTER:	<0.004 nT/sq-rt-Hz RMS. Typically 0.01 nT P-P at a 0.1 second (10 Hz) sample rate (90% of all readings falling within the P-P envelope)
SAMPLE RATE:	Up to 40Hz in 100ms increments
HEADING ERROR:	<0.25 nT over entire 360° equatorial and polar spins
ABSOLUTE ACCURACY:	<3 nT throughout range
OUTPUT:	Cycle of Larmor frequency = 3.498572 Hz/nT, RS-232 data at 115K baud, concatenated data streams from 2 to 8 sensors depending on sample rate
MECHANICAL:	Total weight including 70kg (155 lbs) including two fish, wing and tow cable. Sensor separation is 1.5m for maximum gradient
CABLES:	Vectran Reinforced multi-conductor tow cable. Breaking strength 3,600 lbs, 0.48 in OD, 500 ft standard maximum. Up to 2100 ft with variable voltage supply. 200 ft (60m) weighs 17 lbs (7.7 kg).
OPERATING TEMPERATURE:	-30°F to +122°F (-35°C to +50°C)
STORAGE TEMPERATURE:	-48°F to +158°F (-45°C to +70°C)
ALTITUDE:	Up to 30,000 ft (9,000 m)
DEPTH RATING:	Depth rated to 4,000 psi (2,700m)
POWER:	115/220 VAC, 60 watts at turn-on and 40 watts thereafter
ACCESSORIES:	
Standard:	Power/RS-232 multiconductor cable (electronics to power/data junction box with 9 pin RS-232 connector and power lugs), lengths to be specified, operation manual and reusable shipping and storage containers
Optional:	
Logging Software	MagLog (Logs GPS and Mag, shows trackplot, mag profile, other data)
Processing software	MagMap2000, MagPick

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

05/09



Brazil:
phone: 21 3507-7665 - www.alphaofisica.com.br