AIRBORNE VLF

GSM-90AV V7.0 VLF-EM

Airborne VLF-EM GSM-90AV Console with sensors.
Can also be configured with additional sensor for magnetometer

Some types of geologic contacts, and buried conductive bodies including water-bearing faults. The VLF-EM frequency method is a passive system as it utilizes a fixed position transmitter broadcasting a frequency between 15 and 30Kz.

In a VLF investigation, the magnetic field components of the transmitted signal are measured, although the electrical field components can also be measured as required.

This method can delineate contrast in conductivity at depth and is used in the search for contracts, faults, mineralized bodies, overburden, fractures, voids and for a variety of other purposes, including the location of utility lines and sitting of water wells.

Targets are two primary types:

1) linear trends of considerable length that are more than 30 degrees from the horizontal

2) broader zones of lateral changes in conductivity related to such features as a plumes or alteration zones.

Taking Advantage of the GSM-90AV VLF-EM

VLF-EM system is a two frequency multi-component receiver that measures the in-phase and quadrature-phase fields from two separate radio transmitters in the VLF frequency range (e.g. 15-30 kHz). Such measurements can identify rock fractures and low conductance structures containing sulphide-bearing fluids rich in precious metals.

The GSM-90AV VLF-EM is a state-of-the-art airborne system that enables to acquire data simultaneously for up to 2 transmitter frequencies. Data include in-phase, out-of-phase, horizontal component (x), horizontal component (y) and field strength in pT.

With data quality exceeding standard VLF instruments, GSM-90AV represents a unique blend of physics, data quality, operational efficiency, system design, and options that clearly differentiate it from other VLF systems.

VLF Principles

AEGIS Instruments (Pty) Limited
P.O.Box 973, Lobatse, Republic of Botswana Tel: + (267)-533 0954 Fax: + (267)-533 0963 aegis@gbs.co.bw

A very low frequency (VLF) investigation is well suited to the location of geologic faults (and approximating their attitudes),

This new GSM-90AV Airborne VLF system combines data quality, survey efficiency and options that make it the best solutions

The latest VLF technology

Specifications

Tuning
2 VLF stations simultaneously

VLF Stations
15.1, 16.0, 16.4, 17.1, 18.6, 19.0, 19.6, 21.4, 22.3, 23.4, 24, 24.8, 28.5 kHz;
Other Stations available on request

Parameters Measured
Frequency in kHz
Total field strength in pT, in phase and out-of-phase components as %

Resolution
0.1% total field

Signal Quality
Shown by field strength values
>5 indicate high quality data

Sampling
10,5,2,1 Hz with RS-232 Output

Digital Compass
Heading, pitch and roll at 10 Hz

Tilt Correction
+- 10 degrees of horizontal

Dimensions
Console: 223x69x240mm
Two Sensors: 140x140mm diam.

Operating Temperature
-20C to +50C

Power Source
External 22-32V, 185 Ah @ 24V

AEGIS Instruments (Pty) Limited
P.O.Box 973, Lobatse, Republic of Botswana Tel: + (267)-533 0954 Fax: + (267)-533 0963 aegis@gbs.co.bw