

AEROTEM II

ADVANCED HELICOPTER-BORNE TIME DOMAIN ELECTROMAGNETICS

AeroTEM II is an innovative approach to geophysical surveying with its original concept of a concentric coil helicopter-borne time domain EM system.

Aeroquest has been continuously refining the system design as an exploration tool that is optimized to provide the maximum amount of information on a target conductor. The resulting combination of resolution, conductance discrimination, and geometric information is not possible with any other geophysical platform.



FEATURES

- Focused footprint
- Multiple axis receiver coils, "Z" and "X"
- On-time and Off-time measurements
- Depth of exploration to 250 metres
- Very Portable
- Optional vertical gradient magnetics
- Higher sampling rate (13 μ s) is available for mapping resistive bodies, i.e. kimberlitic pipes

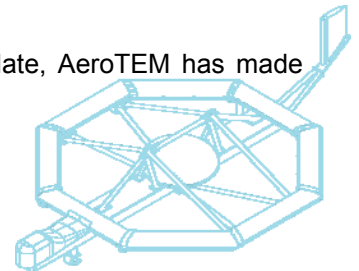
ADVANTAGES

- Highly focused EM footprint provides outstanding delineation and characterization of subsurface conductors, superior to that provided by the much more expensive large-loop ground EM methods.
- This portable system can be dismantled and re-assembled for quick deployment to almost any geographic location.
- Rigid platform provides excellent results even in the most rugged terrain.
- Target responses are independent of bird heading, and show no hearing-bone effect across flight lines.
- Ideal system configuration for flying in a *low and slow*, tight line spacing survey mode for detailing known conductive targets to determine orientation for direct drilling.
- Optional Dual Magnetometers (one on the platform and one attached to the tow cable) allows for vertical gradient magnetics concurrent with EM surveying.

DISCOVERIES

AeroTEM has become for many the system of choice for exploration programs. To date, AeroTEM has made significant discoveries including:

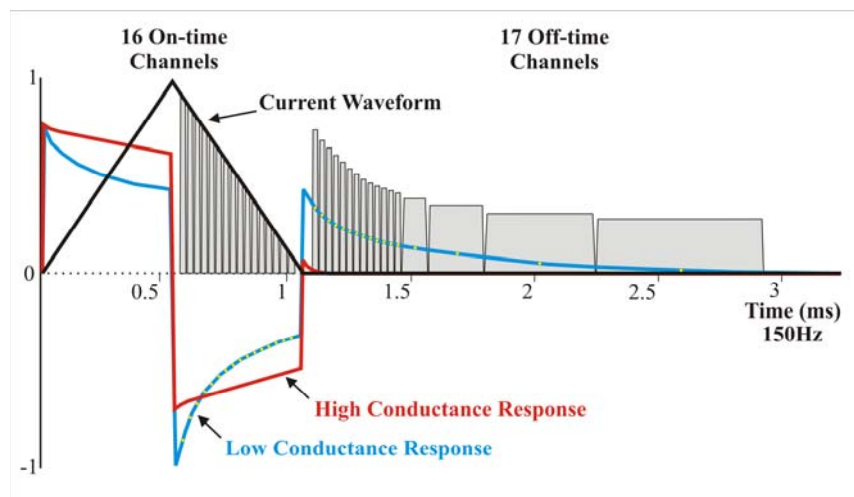
- | | |
|---------------|---|
| ■ Copper (Cu) | ■ Poly-Metallic Sulphide (Cu-Pb-Zn) |
| ■ Gold (Au) | ■ Nickel-Copper-Platinum Group Elements (Ni-Cu-PGE) |
| ■ Diamonds | |



SPECIFICATIONS

Base operating frequency:	125/150 Hz
Transmitter waveform:	Bipolar triangular pulse, 30-50% duty cycle
Transmitter coil:	Vertical dipole
Receiver coils (3-axis):	Concentric vertical Z axis, plus horizontal dipole in X (along line)
Transmitter dipole moment:	40,000 Am ² peak @ 150 Hz typical
Data output:	16 on-time channels plus 17 off-time channels for all receivers plus full waveform streaming data
Output sampling rate:	10 per second for channel data 38,400 per second for streaming data
Tow cable:	40 m long, with Kevlar strain member and weak-link
Overall bird dimensions:	5 m diameter

WAVEFORMS AND CHANNEL POSITIONING



DEPTH OF EXPLORATION

