

P-THEM

TIME DOMAIN ELECTROMAGNETICS

This versatile helicopter system features a powerful compact transmitter, a 3-axis receiver and digital data acquisition & system control.

Providing a tight foot-print, three axis receiver (for better spatial underground object resolution), strong power delivery and good vertical resolution for conductive target structure discrimination.

Full wavelength recorded data allows the user to set the data extraction and processing according to the survey task.

Easy operation and versatile mobility means the P-THEM is well suited for mineral and ground water exploration, near-surface geological mapping, environmental studies, among a variety of applications.

The P-THEM is a helicopter-slung system and can be used by a variety of models like the Bell 206 Ranger, MD 500, AS350 or other.

The P-THEM's compact size and light-weight profile provides versatile airborne operation in rough terrain and on-ground maneuverability.



SPECIFICATION HIGHLIGHTS:

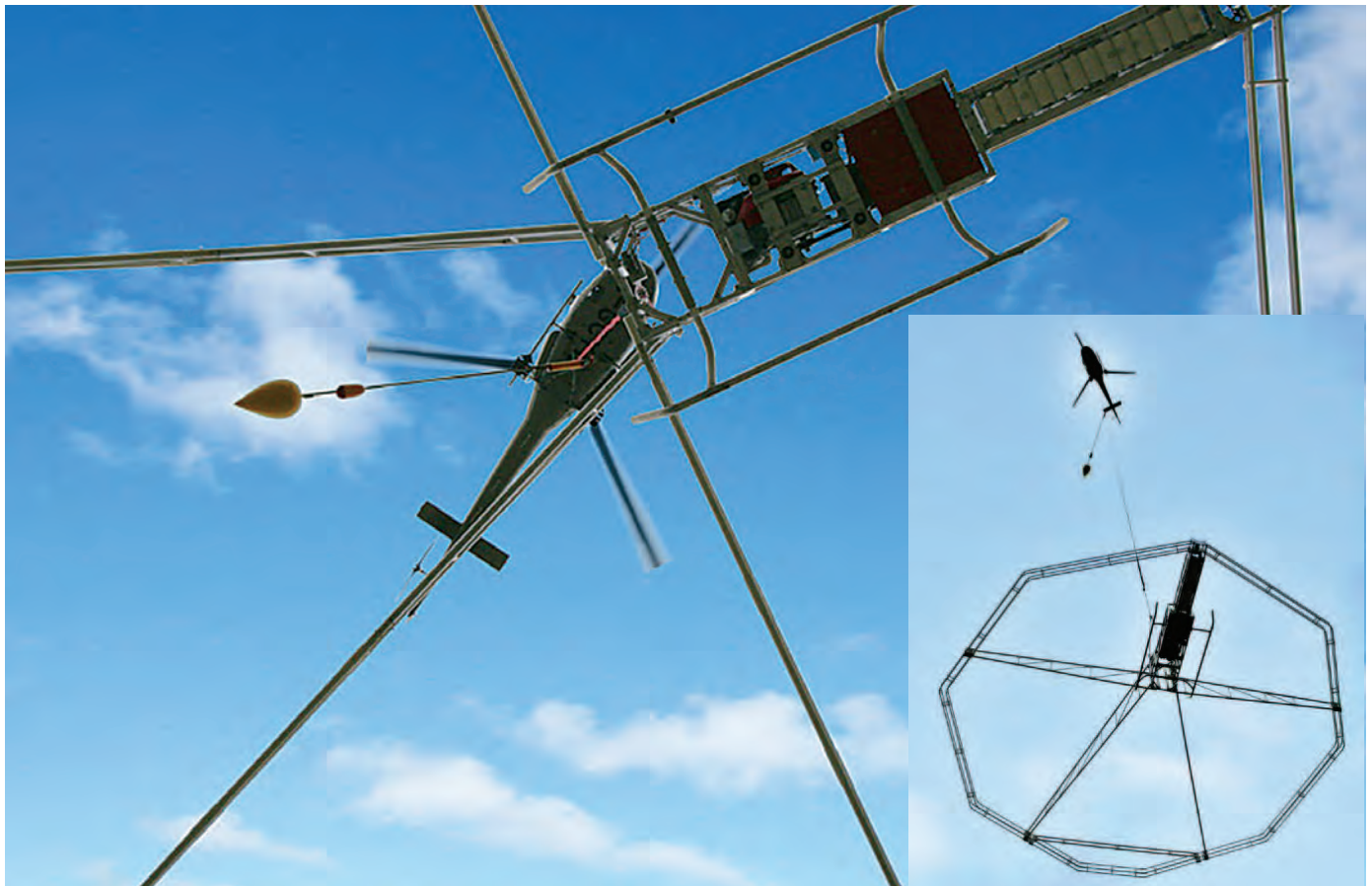
SPECIFICATION / FEATURES	P-THEM
Helicopter Survey altitude, m	90-100
Weight, kg	350 (configuration depended)
Survey speed	any (90km/h - standard)
System suspension	one tow rope, single point suspension
Helicopter type	mid-light-weight (Bell 206, 407; MD500, AS350 series or other)
Landing gear on loop assembly	Skids (Shock absorbers - optional)
ground mobility	attachable wheels
Transmitter (Tx)	Rigid, Al tubes
Installation time	2-4 hr; 2 Persons
Transmitter coil	nonogon shape
Tx position	Vertical axis
Number of Turns	4

SPECIFICATION / FEATURES	P-THEM
Max coil diameter, m	8.6
Tx elevation over the ground, m	30
Base frequency, Hz	25 or 30
Optional base frequency, H2	75 or 90
Peak Dipole Moment, NIA	220000 (up to 380000 optional)
Pulse shape	Half-sign
Pulse length	approx. 4 ms for 25/30Hz; 1.5 ms for 75/90Hz
Power supply	independent on loop generator

Specification highlights:

SPECIFICATION / FEATURES	P-THEM
Additional Tx info	Tx Current monitor channel is installed
Receiver (Rx)	X, Y, Z
Position (Rx)	mid-tow-rope, asymmetrical
Rx elevation over the ground, m	60 (for standard setup)
Receiver suspension	suspension strings
Output EM data	Z and X components recalculated during data extraction
dB/dt	yes
B-field	yes
Sample rate, kHz	90 (75 for 25Hz base frequency)
Data recording	full wavelength
Positioning sensors (Tx)	GPS, Laser Alt., Tilt
Pulse switch off positioning	not-sensitive
Industrial noise rejection	60 or 50Hz, cancelling

SPECIFICATION / FEATURES	P-THEM
Tx pulse control	yes
Estimated penetration, m	350 (for standard system)
Data extraction and processing	Full wave-form data recorded; User friendly post-mission PEI software allows operator to perform DQ control, analyse, filter and noise correction; make required calculations: Full Mag Vector, X and Z channels, B-field; extract time windows (width, number, position) according to the survey tasks; Extracted data in Geosoft, PEI or ASCII format is ready to process and interpret with various software.
System operation requirements	The P-THEM system is designed for high spatial resolution near-surface surveys using lightweight helicopter with the versatility to work in a rough terrain.
Survey Storage	The system can be stored/assembled either inside a hangar or outside. The assembled system can be towed/rolled by one person.



P-THEM SPECIFICATIONS