

Geophysical systems		
Bird	I. Six -frequency electromagnetic system (HEM)	
	Function	Investigation of the underground electric conductivity down to a maximum depth of about 150 m
	Frequencies	386, 1820, 5490, 8330, 41400 and 133200 Hz
	Coil separations	7.938, 7.931, 9.055, 7.925, 7.912 and 7.918 m
	Coil orientations	5 × horizontal coplanar, 1 × vertical coaxial (5490 Hz)
	Manufacturer	Fugro Airborne Surveys (FAS), Canada
	Type	RESOLVE, BKS36a (Bird 61)
	II. Caesium magnetometer	
	Function	Recording of the total magnetic intensity of the earth
	Manufacturer	Geometrics, USA
Type	G-822A	
Helicopter	III. Gamma-ray spectrometer	
	Function	Recording of the energy spectrum of natural and man-made gamma radiation within a range of 0 to 3 MeV
	Manufacturer	Exploranium, Canada
	Type	Spectrometer: GR-820; Detector crystals: GPX-1024/256

Base station	
Magnetic base station	
Function	Recording of the variation of the total magnetic intensity (TMI)
Manufacturer	Base station: FAS, Canada Magnetometer: Cs sensor H-8, SCINTREX, Canada
Type	CF1 Data Logger

Systems for navigation and positioning		
Helicopter	Navigation system	
	Function	On-line determination and display of the GPS navigational data required by the pilot during a survey flight; recording of the geographic position of the helicopter and its altitude above mean sea level
	Manufacturer	Navigation computer and display: FAS, Canada GPS receiver: NovAtel, Canada
	Type	Navigation computer: HeliDas GPS receiver: NovAtel OEMV-2-L1/L2 GPS antenna: NovAtel L1/L2 ANT-532-e
Bird	Positioning system	
	Function	Determination and recording of the geographic position of the HEM bird and its altitude above mean sea level
	Manufacturer	Position recording and display: FAS, Canada GPS receiver: CSI Wireless, Canada
	Type	Position recording: HeliDas GPS receiver: DGPS MAX

Altimeters		
Helicopter	Radar Altimeter	
	Function	Recording of the altitude of the helicopter above ground level
	Manufacturer	Sperry, USA
	Type	AA-200
	Barometric Altimeter	
	Function	Recording of the altitude of the helicopter above mean sea level
	Manufacturer	Rosemount, USA
Bird	Laser Altimeter	
	Function	Precise recording of the altitude of the HEM bird above ground
	Manufacturer	Riegl, Austria
	Type	LD90-3800VHS

**Data acquisition and recording systems**

<b>Helicopter</b>	Function	Digitizing of the analogue signals, buffering of all digital data; flight path and displaying of selected data channels; storage of position and field data on CF card ready for processing with GEOSOFT OASIS montaj
	Manufacturer	FAS, Canada
	Type	HeliDas

**Video system**

<b>Helicopter</b>	Function	Recording of the flight track and monitoring of the movements of the HEM bird during take-off, landing and flight
	Manufacturer	Colour camera: Sony, Japan Video recorder: AXI, Sweden
	Type	Colour camera: DC372P Video server: AXIS 241S

**Additional equipment**

<b>Helicopter</b>	Central power unit	
	Function	28 V DC on-board voltage of the helicopter buffered by a 24 Ah buffer battery and connected to a central power unit
	Manufacturer	Sikorsky, USA
	Instrument rack	
	Function	19" rack on shock absorbers to mount all components of the airborne geophysical system
	Manufacturer	Sikorsky, USA