



## OUR SOLUTIONS

- ◉ UAV Magnetic Survey
- ◉ UAV TDEM
- ◉ UAV Total Field Magnetometric Resistivity (TFMMR)
- ◉ Photogrammetry and Orthophotography
- ◉ Fixed-Wing Magnetic
- ◉ Fixed-Wing Radiometric
- ◉ Data Processing
- ◉ Quality Control

AeroPhysX uses manned and unmanned aerial sensor technology to acquire, process and interpret data to deliver geophysical insights for customers around the globe, focusing to date on the mining sector.

Our mission is to disrupt the geophysical and geospatial sectors, through the use of data and UAV technology. Our vision is to become the leading UAV solution provider for mining exploration and multiple other solutions.

With our proven technology in magnetic and electromagnetic techniques, we collect and deliver advanced processing interpretation of data.

Our unique ability enables customers and clients to make more accurate decisions, enhancing efficiencies and increasing return on investments.



# AEROPHYSX

A NEW STANDARD IN  
EXPLORATION TECHNOLOGY

UAV-BASED TECHNOLOGY BROCHURE

## GET IN TOUCH

Offices in Canada and South Africa  
Projects undertaken worldwide



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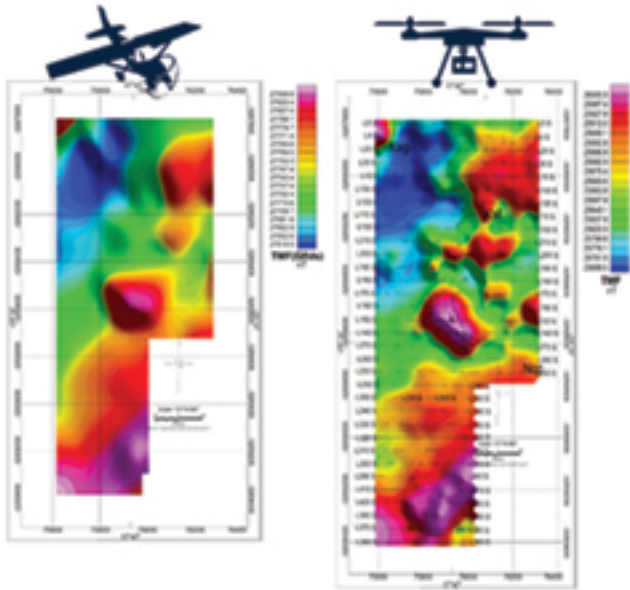


[www.aerophysx.com](http://www.aerophysx.com)

## UAV MAGNETICS

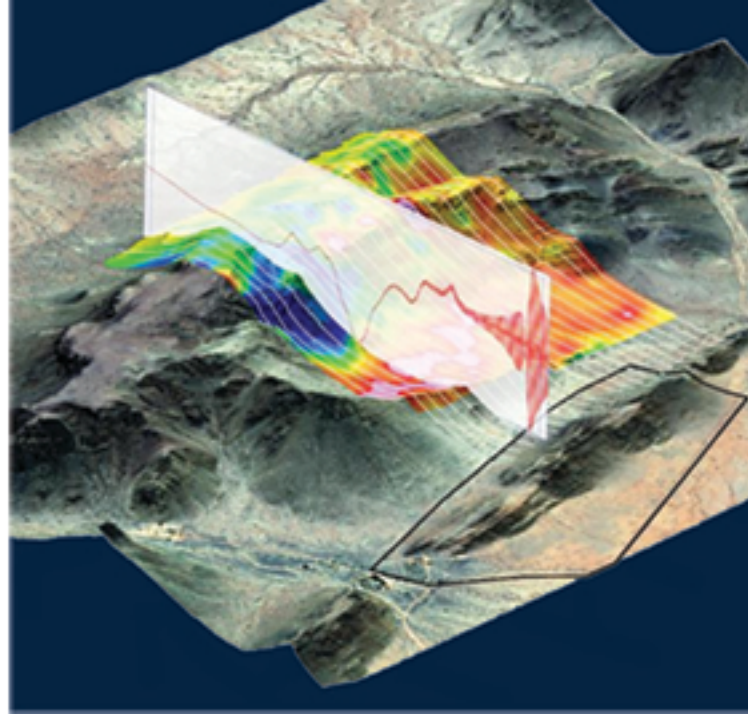
Using the revolutionary new MFAM sensors from Geometrics and developing control software for flight path and terrain-following which we could integrate onto a UAV we are able to fly high resolution magnetic surveys following the terrain precisely even in rugged terrain. The data collected with this system is outstanding and will add new dimensions for exploration.

Below is actual data from the same area.



### Advantages of the UAV-MagArrow system:

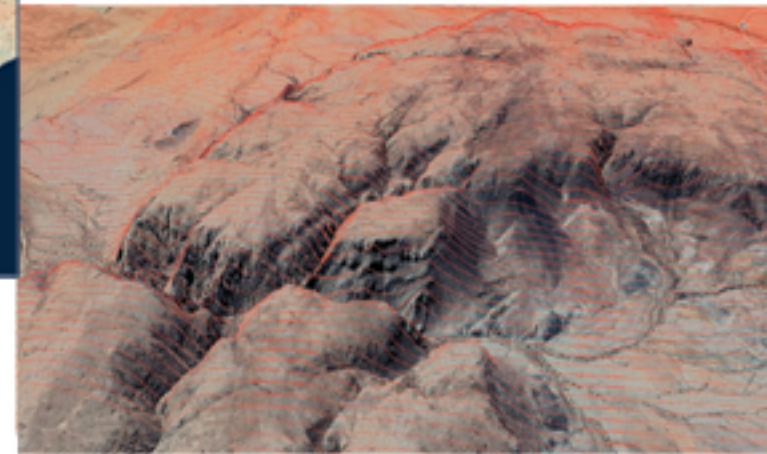
- ⦿ UAV surveys can be flown as low as 20m agl
- ⦿ Flying speed of approximately 30 - 40 km/hr
- ⦿ Accurate terrain-following due to software control and vertical climbing ability allow surveying of mountainous areas and valleys
- ⦿ Flexible base of operations
- ⦿ The platform is unmanned therefore any accident results in zero loss of life
- ⦿ Outstanding data quality due to low altitude, slow speed and 1000Hz sampling



## SAFETY BUBBLE

We have developed a proprietary technique that creates a 3D virtual bubble around the drone that detects obstacles in 360° angle.

This enables us to undertake UAV surveys in terrain such as mountains previously regarded to be hazardous for UAV flight while able to maintain the integrity of the data.



## UAV ELECTROMAGNETICS

DroneTDEM is our proprietary technique where we measure simultaneously, the slowly varying field strength of the earth's magnetic field and, superimposed on this magnetic field, is also the magnetic signature of the fast-changing manmade induced currents in the subsurface.

Every electrical current that flows has an associated magnetic field. Due to recent advances in magnetometer technology, we are able to measure the decay of the magnetic field around electrical currents in the sub-surface directly with a special total field magnetometer that can measure:

1. fast enough (1000 samples per second)
2. noise/sensitivity: 0.005nT/-VHzrms typical

**THIS IS ONE OF THE FIRST DRONE TDEM SYSTEMS IN THE WORLD**

## CLIENT BENEFITS

