

+ GroundProbe InSAR Service

An effective monitoring tool for detecting and monitoring surface movement, the GroundProbe InSAR service, in partnership with 3vGeomatics (3vG), provides monitoring capabilities complementary to GroundProbe's ground-based radar suite.

MAKING MINING SAFER

The live data is seamlessly imported into GeoExplorer for complementary analysis of data from all your monitoring sensors.



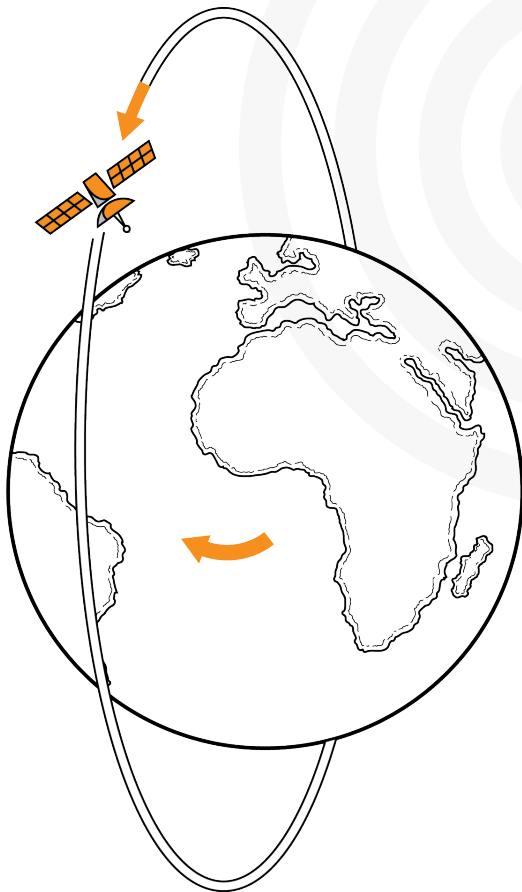
Features and Benefits

LARGE AREA, HIGH PRECISION MONITORING

Satellite-based InSAR can be used to detect displacements and acceleration phases over large areas with millimetre level precision, providing accurate, high value information that highlights potential risks to safety and production, allowing for informed decision-making.

FASTER REVISITING TIMES AND DATA PROCESSING

Of all those in the Earth's orbit, the GroundProbe-accessed satellites are some of the more capable and flexible in terms of their revisiting and data processing times. The satellites typically pass over the same location every several days and 3vG are capable of processing data within 24 hours of receiving a satellite image, allowing for the monitoring of faster moving areas, detecting subtle motion, and providing more up-to-date information.



HISTORICAL ANALYSIS CAPABILITIES

As well as acquiring new imagery each revisiting cycle, archive imagery of a corresponding area can be obtained, allowing for a retrospective view of surface displacement that has taken place and deeper analysis of continued displacement over time.

INTEGRATED MONITORING

Satellite-based radars can cover an entire mine site and will see behind the crest of pit wall where your ground-based radar can't see, monitoring critical infrastructure, tailings dams, slopes and stock piles from above. By integrating satellite monitoring alongside ground-based monitoring, blind spots in surface movement can be revealed, and the possibility of missing events or generating false alarms is reduced.

LIVE DATA

Through the InSAR module, millions of pixels of satellite data are seamlessly imported into GeoExplorer each time the satellite flies overhead. The data is live, allowing users to click on any pixel, select any region and chart deformation and velocity with high precision.

SIDE-BY-SIDE ANALYSIS

Data is temporally and spatially normalised automatically in GeoExplorer for complementary analysis of data from the different sensors, unlocking the synergy of ground-based and satellite-based interferometric radar. The colour palettes of each of the sensors can be harmonised and their alarms combined, allowing for the same degree of movement to be visualised in the same way, hot spots to be aligned and all data types to be handled in the same way.

Furthermore, additional modules of other sensor types can be integrated, allowing users to compare and analyse InSAR data against data gathered by a range of other monitoring sensors including SSRs, total stations, piezometers, and much more, on the one dashboard.