Monitoring your Land Conditions with Satellite Imaging + AI

AVANT

2025

LAND DISPLACEMENT MONITORING

CIVIL ENGINEERING DATA SOLUTIONS

COASTAL EROSION MONITORING

EMERGENCY RESPONSE SOLUTIONS

Powered by satsense

InSAR DATA ANALYSIS APPLICATIONS

Residential Development

Monitor subsidence across entire neighborhoods with millimeter-level precision for early detection of foundation shifts and damage prevention.

Civil & Engineering

Generate automated deformation heat-maps with bi-weekly to monthly updates to prioritise maintenance and reduce costly inspections.

Coastal Erosion

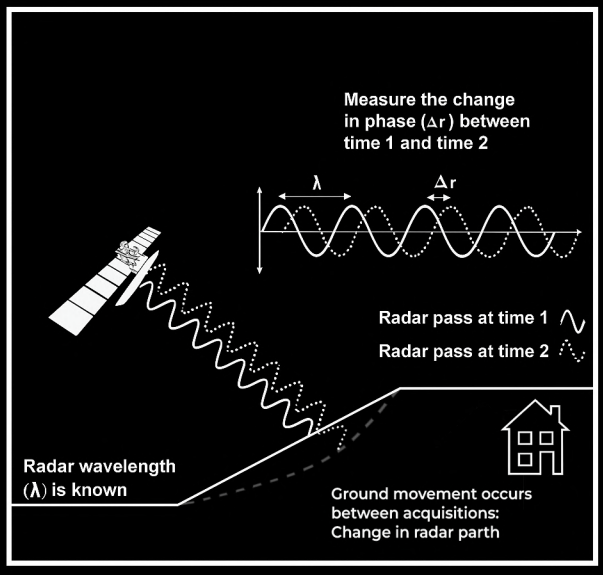
Track shoreline retreat up to 4m/year with satellite time-series to inform erosion mitigation strategies.

Landslide Monitoring + Alerts

Monitor an area of land for risk of landslides. View the full history of movements, and even after-event situational report.

How it Works

Interferometric Synthetic Aperture Radar (InSAR) uses satellite radar signals to measure ground displacement over time. It compares radar phase shifts between two satellite passes to detect minute land surface movements.



We deliver data from C-band satellites Sentinel-1A & 1C for day/night all-weather monitoring.

PURCHASE YOUR InSAR LAND ANALYSIS REPORT

Go back in time with a decade's worth of InSAR satellite data to see how your site or region has shifted... down to just a single millimeter. This long-term view makes it easy to spot gradual trends, catch hidden risks, and make smarter decisions.

Great for planning developments, managing infrastructure, and insurance.

With ten years of surface-motion history, you gain foresight and avoid surprises before they become costly problems.

Ask our team about our InSAR Geo-tech Reports

avantglobal.ai

LandSure aotearoa

How Much will my Land Stability Report Cost?

Recommended Retail Price and Scheduling Options to Suit. Prices in NZD, excludes GST.

Residential Small

$2.80 per m²

0 - 500 m² Section Size

- Includes velocity contours and deformation rates Report
- Millimetre-scale displacement accuracy Report
- Long-term trends visualised to assess cumulative risk
- **Simply give us your address, and we will email your form**

Residential Medium

$2.13 per m²

501 - 750 m² Section Size

- Includes velocity contours and deformation rates Report
- Millimetre-scale displacement accuracy Report
- Long-term trends visualised to assess cumulative risk
- **Our team will send you a boundary file to confirm or edit**

Residential Large

$1.80 per m²

751 - 1,000 + m² Section Size

- Includes velocity contours and deformation rates Report
- Millimetre-scale displacement accuracy Report
- Long-term trends visualised to assess cumulative risk
- **Work with our team to identify trouble spots only & reduce cost**

Rural + Lifestyle Block Reports

$1.60 per m²

Recommended Retail Price
1,000 + m² Section Size

Ongoing Monitoring with Alerts

Keep an eye on your property with scheduled land-stability scans.

Monitor areas of concern and receive ongoing email reports and automated text-message alerts.

Discounts available for rural and large area monitoring.

ea 12 Days

$0.008/m²

- Scanned On-Demand
- Early Warning Text + Email Alerts
- Web Portal Dashboard Access

Charged per Scan

Monthly

$0.010/m²

- Scanned On-Demand
- Early Warning Text + Email Alerts
- Web Portal Dashboard Access

Charged per Scan

Quarterly

$0.015/m²

- Scanned On-Demand
- Early Warning Text + Email Alerts
- Web Portal Dashboard Access

Charged per Scan

We Guarantee the Quality of your Data

LandSure partners with world-leading InSAR data scientists and Machine Learning experts.
Our data partners are ISO 9001:2015, ISO 27001:2022 and UKAS 450392024 accredited for data accuracy verification.

Price list updated as of 29.08.2025

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Technology Features

InSAR ANALYSIS FOR COMMERCIAL USES

Satellite-Based InSAR Data

We deliver data from C-band satellites (Sentinel-1, COSMO-SkyMed, TerraSAR-X) for day/night, all-weather monitoring

Millimetre-Scale Precision

Phase-based methods measure mm-level surface changes—ideal for civil, coastal, and foundational assessments

Automated Analytics Dashboard

Delivered via web portal. Time-series plots, heat-maps, velocity contours and meta-data summaries

Scalable & Cost-Effective

Cover entire regions remotely. One satellite pass monitors hundreds of km², so no need for costly in-situ installs

Integrate with AI & IoT

Fuse InSAR with sensor networks and machine-learning workflows for predictive maintenance and anomaly detection

Coming Soon

COASTAL EROSION HISTORICAL REPORT

InSAR Satellite Radar

Tracks and measures long-term changes in coastal land position and stability by comparing satellite scans over time to detect erosion patterns

FLOOD MAPPING HISTORICAL REPORT

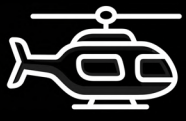
Synthetic Aperture Satellite Radar

Detects flood-affected areas using radar imaging that penetrates cloud cover and captures surface water changes, even during storms

CROP YIELD PREDICTION

Hyper-spectral Satellite Imagery

Analyses detailed light signatures from crops to forecast upcoming harvest yields based on plant health, stress, and nutrient response



ON-DEMAND SEARCH AND RESCUE

Multi-spectral Satellite Location Scan

Provides rapid area scans using satellite imagery to help locate people, vehicles, or aircraft based on material signature detection, and surface changes

LAND MOISTURE REPORT + MONITORING

InSAR Satellite Radar

Analysing surface temperature variations to detect dry zones or water saturation in the soil. Automate Irrigation Systems.

POST-EMERGENCY SITUATIONAL REPORT

Using Multi-Sensor & Data Options

Delivers a fast, tailored overview of disaster impacts, such as ground shifts after earthquakes or flooded zones

InSAR

Interferometric Synthetic Aperture Radar

EXPLAINED

A remote sensing method that measures millimeter-scale changes in Earth's surface by comparing radar waves from repeated satellite passes.

All-Weather, Day/Night Capability:
Uses microwave radar unaffected by clouds or darkness

Precision Ground Motion Detection:
Captures vertical and horizontal shifts at millimeter to centimeter resolution

Wide-Area Displacement Maps:
Produces detailed interferograms shows deformation across large areas

ABOUT AVANT

Avant is a team of good Kiwis, wanting to do good things for our community with AI.

Avant Global is a premier New Zealand based technology company specialising in the integration of satellite imagery, IoT sensor networks, and AI-driven analytics.

Our multidisciplinary team combines deep expertise in AI development, computer vision, geospatial image analysis, sensor engineering, and data security.

With a strategic focus on community and environmental stewardship, we work with governments, councils and organisations to adopt advanced technologies responsibly.

MAC JONES
Chief Technology Officer

JAKE WU
Head of Machine Learning

JORDI LIONCH
Head of Geo-spatial Analysis

SIMON ASHBY
Head of Civil Projects

GET IN TOUCH

Speak to our team for more information

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