FIREWATCH

GEOSPATIAL INSIGHT

FireWatch

Live Wildfire Monitoring, Product Details

The Californian Wildfires in early 2025 caused immense devastation, with the Palisades and Eaton fires claiming multiple lives and destroying over 17,000 structures. Fuelled by dry conditions and strong Santa Ana winds exceeding 100mph, these events highlight the growing unpredictability of wildfire behaviour driven by climate change.

The financial toll, surpassing $100 billion, underscores the challenges insurers face in managing escalating claims and costs in a changing climate.

FireWatch, the innovative wildfire monitoring platform from Geospatial Insight, integrates live satellite analysis with weather and environmental data. This near real-time solution helps insurers, emergency responders, and policymakers mitigate risks, optimise strategies, and protect lives and property amid the rising threat of wildfires.

Overview

The FireWatch platform integrates data from multiple sources to deliver near real-time and archival insights into wildfire activity. Leveraging APIs, this innovative solution utilises data from Earth Observation (EO) satellites, NASA's Fire Information for Resource Management System (FIRMS), weather data feeds, and soil moisture levels. This comprehensive data is delivered up to four times a day, to ensure timely updates for accurate monitoring.

Additionally, archived data is available at a daily resolution, supporting historical analysis. Optional add-ons include AI-driven damage assessments using very high-resolution satellite imagery to quantify damage levels, streamlining claims processing and reducing settlement costs.

Features

- Wildfire Perimeter (US-only): Provided by the Integrated Reporting of Wildfire Information (IRWIN)
- Soil Moisture: Captures daily data at a 100km spatial resolution
- Weather Forecasting: Delivers wind speed and direction predictions with a 2km resolution
- Thermal Imaging: Monitors wildfire hotspots with regular updates from Moderate Resolution Imaging Spectroradiometer (MODIS) and Visible Infrared Imaging Radiometer Suite (VIIRS) satellites
- Historical Data: Archived wildfire records dating back to 2017 allows retrospective modelling
- Customisable Dashboard: Supports data visualisation and analysis
- Regional Monitoring: Tracks wildfires across diverse environments and geographical regions

Delivery Mechanisms

FireWatch is designed for seamless integration into existing workflows. Data delivery options include:

- APIs: for direct integration and automated data access
- Reports: Customised analytical insight delivered in a clear and actionable format
- Geospatial files: Readily compatible with GSI platforms for detailed analysis

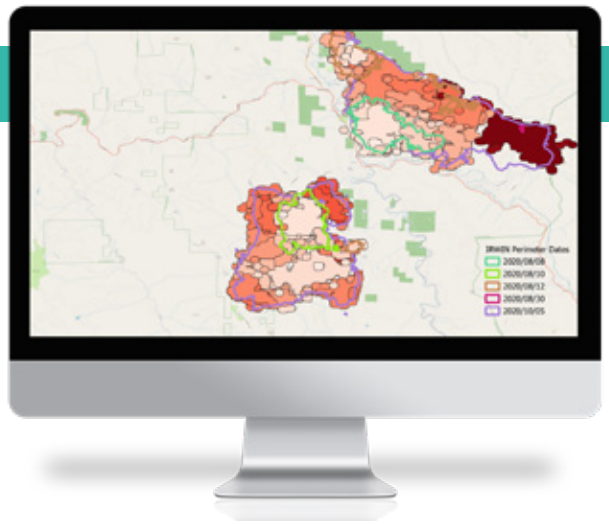
Alternatively, FireWatch is accessible via our intuitive, user-friendly dashboard, VIP, which provides visualisation and near real-time tracking to monitor fire progression and enable faster and more informed decision-making.

Benefits

- Risk Assessment: Combines historical and near real-time data for improved modelling and underwriting
- Loss Mitigation: Provides early warnings to minimise damage
- Portfolio Management: Supports exposure monitoring and reinsurance negotiations
- Policy Development: Enables parametric models and tailored wildfire coverage

Applications

- Near Real-Time Tracking: Identifies wildfire activity and progression instantly
- Risk Monitoring: Provides reactive insights into wildfire activity and its impacts
- Pre-Processing: Removes false positives for reliable decision-making
- Damage Assessment: Analyses post-event impacts using overlays such as IRWIN perimeters
- Data Visualisation: Delivers insights via interactive maps and reports



Fast, reliable intelligence for wildfire resilience:

Contact us now to explore how our solutions can enhance your fire detection and mitigation efforts.

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