Descartes Labs
GOVERNMENT

Find. Monitor. Predict.

Early Detection of Wildfires
Satellite-based wildfire detection and alerting to enhance coverage over your area of interest

Overview

The increased frequency of wildfires in recent years has resulted in loss of lives, financial devastation, and untold damage to landscapes and infrastructure. As a company based in the southwest United States, the threat of wildfires is ever-present. With that in mind, we set out to use our platform and geospatial tools to help fire responders better manage wildfires, as early detection is directly linked to damage caused.

Here at Descartes Labs, we've created an operational wildfire detector that constantly monitors the Western Hemisphere and alerts fire responders and governments within minutes of a wildfire detection. The goal of this detector is to augment the existing methods of fire detection to provide a more robust look at what is happening on the ground.

Key Features

- Satellite-based wildfire detection and alerting

- Ubiquitous 24/7 monitoring that doesn't rely on ground sensors or people in place

- Choose your own areas of interest

- Fast set up time — one week or less

- Alerts delivered with lat/long coordinates to improve accuracy of response

- Fire classification to prevent false positives

Regions of Service

GOES-16   **GOES-17**

5 Minutes
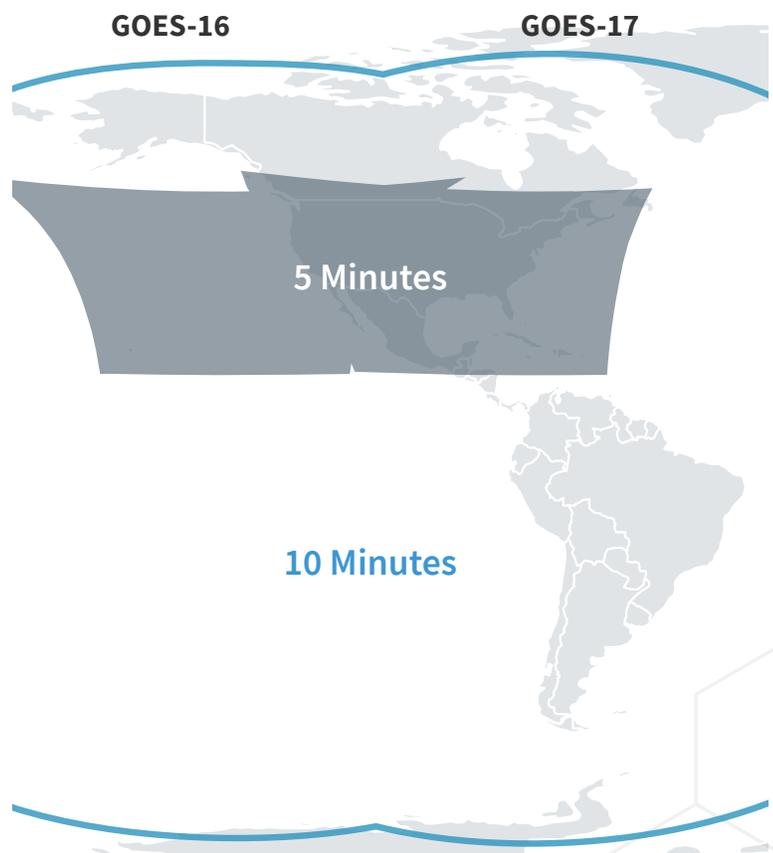
10 Minutes

The wildfire detector uses two geostationary satellites, GOES-16 and GOES-17, which provide a constant view over the Western Hemisphere.

CONUS: Images collected every 5 minutes
**Entire Western Hemisphere:** Images collected every 10 minutes

Images are collected in the thermal infrared spectrum, which is useful for detecting hot spots, at a pixel sixe of 2km x 2km.

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Contact us:
hello@dl-gov.com

🌱 Grass fire   🌲 Forest fire   🌾 Agricultural fire
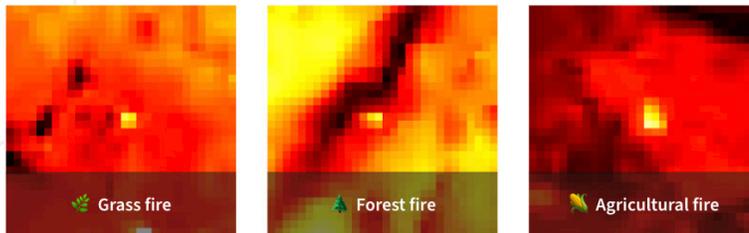
Classifying Hot Spots

It is important to classify types of anomalies to distinguish those we are interested in from those we are not. We only want to produce alerts for wildfires (ie. grass fires and forest fires), and minimize the number of false positives.

Data Output

Alerts can be customized for your specific area of interest, with up to 250 customer-defined AOIs.

Within customer-defined AOIs, data can be sent as:

CSV/email with timestamp, lat/long, fire event ID, and fire brightness (Kelvin)

SMS/text with timestamp, and lat/long

A new fire has been detected by Descartes Labs at 38.8396, -122.8041 latitude/longitude, 74.2 mi west of Sacramento, California, United States. Alert sent at 2019-10-24 04:31:32Z UTC. Google Maps: https://www.google.com/maps/search/?api=1&query=38.839642,-122.804118

38°50'22.7"N 122°48'14.8"W
www.google.com

Why Descartes Labs?

Support:
We provide support for our signal to help you get the most out of the wildfire detector

Easy-to-use:
Off-the-shelf alerting system requires no data science experience for users

Complementary:
Works with existing detection methods to provide broad coverage and fast response in remote areas

Targeted:
Filters for fires and locations of interest, and provides classification of fire types

Timely:
Early warning alerts to fire management authorities saves critical minutes in response

Next Steps

- Share potential areas of interest and historical fire events to evaluate service
- Explore options for 30-day paid trial, including method of alerting
- Generate a quote for full service after the trial has completed

Get in Touch

Contact hello@dl-gov.com to discuss how you can benefit from early detection of wildfires.