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Product Spotlight
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Vaisala Continuing Current Dataset

Pinpoint the most harmful lightning strikes and minimize damage to ground-based assets

While fewer than 10% of lightning strikes involve continuous current events, these are strikes that can be the most destructive. They have the greatest potential to spark wildfires, put holes in wind turbine blades, or damage other electro-mechanical assets. The Vaisala Continuous Current Dataset provides real-time lightning reports that isolate these strikes from other less damaging types of lightning, so you can quickly deploy your post-storm inspection and protection resources right where they are needed.

Vaisala has developed a first-of-its-kind system that merges data from satellite-borne lightning sensors with data from a proprietary National Lightning Detection Network (NLDN) and Global Lightning Dataset (GLD360) to isolate the extremely damaging continuing current strikes and estimate their duration. When you are responsible for protecting natural resources or company assets spread across thousands of miles of remote wilderness, this information is invaluable for identifying where best to utilize your containment and investigation teams and minimize potential damage.

Key benefits

Improved effectiveness of response and inspection operations

Identify where your organization should focus limited resources in order to quickly resolve potential issues after a thunderstorm.

Early warning alerts

Know in real time when storms with potential damaging continuing current events are closing in on your operational vicinity.

Early intervention

Spend less time trying to determine where damage may have occurred. Quickly and accurately target your response to prevent progressive damage to assets and property.

Reduction in damage costs

Increased efficiency and effectiveness of post-storm response and inspections will limit the amount of damage you'll have to contend with.

Trusted weather observations for a sustainable future

Continuing Current Dataset at a glance

Applications

- Prioritizing resource deployment in the first moments of incident to speed containment and limit property damage.
- Aiding incident crews in response prioritization to increase the effectiveness of inspection efforts and decrease incident resolution time.
- Minimizing wildfire spread through real-time identification of high-probability potential fire sites caused by lightning.
- Increasing operational efficiency and effectiveness to reduce costs of post-storm inspections and limit fire damage.
- Enabling investigation of lightning as the cause of property damage or fire.

Key features

A unique, patented system for isolating continuing current strikes that combines lightning information from both ground-based detection networks and satellite-borne sensors.

Real-time isolation of cloud-to-ground lighting strikes that identifies continuing current strike event date and time with accuracy to the millisecond, the specific latitudinal and longitudinal coordinates, and event duration.

Comprehensive real-time data access without the need to invest in or install any additional equipment or systems.

Around the clock detection with superior accuracy greater than 95% for cloud-to-ground strikes, overall classification accuracy of 85–90%, and median location accuracy of less than 200m.

Lighting data sequencing that progressively filters out cloud lightning events and cloud-to-ground lightning data without continuing current, leaving the data showing only continuing current episodes.

Lightning reports with time lapse imaging and cumulative data for building historical records and for meteorological or operational planning.

Why Vaisala?

The industry standard in global lightning data

Vaisala delivers the most accurate real-time and historical lightning data in the world and is trusted by U.S. federal agencies, national meteorological agencies, and commercial safety operations across the planet. Fed by a global array of advanced lightning sensors, Vaisala captures lightning events for nearly any location in the world — including oceans, mountain peaks, and other areas not typically covered by radar.

Support and services you can count on

Look to Vaisala for dependable support, project capabilities, and training so you can get the most from your system. With decades of experience providing the best technologies and the finest support, Vaisala's philosophy of partnership is unmatched in the industry.

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