VAISALA

Strike Damage Potential

Identify the lightning strikes with greater potential to cause damage or start a fire



Negative + Positive Cloud
184 (33%) 4 (0.7%) 369 (66.2%)

Not all cloud-to-ground lightning strikes are the same. Most have little impact, while others can ignite wildfires, put holes in wind turbine blades, cause extreme heating damage to electric infrastructure and set fire to property. Now you can simplify your post-storm analysis by reducing the lightning stroke data into lightning strikes and identifying the lightning strikes with greater potential to have caused damage — so you can take quick action.

Vaisala Strike Damage Potential is the world's first solution to group lightning strokes into lightning strike points and the first

to provide accurate data on the potential for damage from each lightning strike. This innovation identifies and targets the damaging strikes by ranking their potential for damage, including those with compound lightning strikes: cloud to-ground strokes following the same channel, resulting in multiple repeat strikes to the same strike point. It also identifies the damaging strikes with higher probability of continuing current and lasting longer than 40 milliseconds, which can cause extreme heating.

Strike Damage Potential delivers near-real time notification and prioritization, which

Key benefits

Provides fast, critical lightning insights

Simplifies lightning data into strike points and shows the precise location of the strikes—both near-real time and historical—most likely to have started a fire or caused damage

Saves time and money

Enables early intervention so you spend less time and fewer resources repairing damage or containing wildfires.

Easy to use and integrate

Data subscription provides quick insights through an easy-to-use interface or an API integrated with your own application.

Provides reliable accuracy

Built on the GLD360 and NLDN—two of the world's most accurate and dependable lightning detection networks—for insights anywhere in the world.

decision makers can use to quickly intervene before a problem escalates to the point of endangering property, or threatening power generation and delivery.

Part of the Vaisala Lightning Damage Insights suite of solutions, Strike Damage Potential builds on data from the Vaisala Global Lightning Detection Network (GLD360) and National Lightning Detection Network (NLDN). The data is available with a subscription from either network, accessible through an easy-to-use interface or API.

Applications

Supports notification and analysis of:

- Wildfire starts
- Wind turbine damage
- Overhead power line damage
- Property insurance claim validation

Application	Primary field to monitor	Secondary field to monitor
Wildfire start investigation	Continuing current probability	Non-metal damage potential
Wind turbine damage investigation	Non-metal damage potential	Continuing current probability
Transmission line damage investigation	Metal damage potential	Continuing current probability

Strike damage potential output data fields

Metal damage potential	0 to 100th, percentile	
Non-metal damage potential	0 to 100th, percentile	
Continuing current probability	Highest, Higher, Medium, Lower, Lowest	
Strokes in strike (number)	1 to 20, integer	
Impulse charge (metals)	0 to 75 Coulombs	
Impulse specific energy (non-metals)	0 to 2000000 J/Ohm	
Ground strike point id	0 to 9999999999	
Strike point start	True or false	
Strike point location	Lat, Lon	

-9999 to 9999 kA

Other relevant fields from stroke data

Maximum rate of rise (stroke)	(0 to 999.9 kA/µs

Why Vaisala?

No other company captures more data on lightning events than Vaisala

No matter how you use lightning information, your decisions and evaluations demand the best data possible. Vaisala delivers the most accurate and reliable lightning information wherever and whenever you need it, and no other company comes close in terms of quality, accuracy or coverage of lightning data.

For more than 30 years, Vaisala has created the most accurate lightning detection solutions available. Customers trust Vaisala technology to help them make critical operational and safety decisions based on real-time storm and lightning data.

Dependable support

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



Peak current (stroke)

vaisala.com/lightning



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