

Global Lightning Detection Network (GLD360)

Accurate, actionable global lightning detection for maritime operations with the simplicity of a subscription



Key benefits

No sensors or capital costs

Users get immediate access to GLD360 real-time global data without having to purchase, install, or maintain any sensor equipment or processing systems. This can relieve significant burdens for ships, offshore platforms and stations, and ports.

Better data, smarter decision-making

GLD360 provides complete awareness by delivering pinpoint lightning data while also encompassing entire storm systems — not just local areas within sensor or radar range.

Simple access and usability

A modern, web-based interface and effective warnings enable users to confidently understand and act on threats — and know sooner when it's safe to resume operations, maximizing efficiency and productivity.

Standardization and universal access

Standardization across all user operations provides the highest quality lightning data anywhere in the world, with better than 99.99% data availability.

Vaisala Global Lightning Detection Network (GLD360) delivers the most reliable, real-time lightning data available — with global coverage. Ideal for critical onshore and offshore maritime applications, it gives teams the accurate, actionable information they need to maintain safety and operational continuity.

Vaisala GLD360 is fed by a worldwide network of advanced sensors that detect lightning wherever it occurs, on land or in the middle of the sea. Its unmatched detection efficiency and industry-leading location accuracy can detect thunderstorms, track their trajectory and intensity, and support hazardous weather warnings — well beyond the range of radars, standalone sensors, and independent weather networks.

The result is outstanding value across a range of maritime applications, from offshore wind energy development and operation to port management, shipping, and helideck operations. GLD360 data is compatible with most weather monitoring and storm alert systems, including Vaisala Thunderstorm Manager, so maritime operators and port authorities can easily incorporate it into their daily operations.

GLD360 at a glance

Applications

- Offshore platform/substation operations, equipment, or personnel transfer
- Wind farm installation, maintenance, and Wind Turbine Installation Vessel (WTIV) transport operations
- Helipad operations and transportation safety
- Lifting operations, crew exchanges, cargo transfer
- Post-event damage or fire investigations, historical assessments
- Port or near-shore industrial operations, safety protocols, and planning

Key features

Industry-leading detection and accuracy from a global array of advanced lightning sensors — capturing nearly all thunderstorms on Earth

Location accuracy of 1km and detection of more than 2 billion events each year

Real-time data availability (30-second latency)

Flexible data delivery with web-based software supporting automated warnings, or via a real-time data-feed and API; allows for simple integration into existing weather platforms

A single source for coverage that captures detailed lightning data for even the most remote onshore and offshore locations and lets you access it when and where you need it

Why Vaisala?

Weather and environmental insights are the greatest catalysts for successful maritime operations. From sensors to systems and digital services, Vaisala technology empowers maritime leaders to confidently meet new challenges and harness new opportunities.

Vaisala is driven by passion, relentless curiosity, and the desire to create a better world, as reflected by our guiding principles for maritime:

1. Master the weather, master the sea

The weather affects maritime operations—whether onshore or offshore—more than any other factor. It also reveals the vast potential of the sea. We enable maritime leaders to harness that potential while navigating pressing challenges driven by climate change.

2. Oceans of insight

The maritime industry is a complex ecosystem, with valuable information to be found everywhere. Our integrated, end-to-end solutions turn that information into practical insights for new competitive advantages.

3. Currents of innovation

Maritime is evolving, and the currents of innovation are taking us to a more sustainable and weather-aware industry. Vaisala markets leading-edge solutions backed by our unmatched legacy of scientific leadership.

4. Champions for sustainability

We help provide a proactive, informed approach to navigating sustainability initiatives and saying ahead of regulatory pressures. Along the way, we protect and strengthen the ecosystems of which we are all part.

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