VAISALA

Helideck Monitoring System with integrated real-time lightning data services

Product Spotlight

Master the weather, master the sea for safe and efficient offshore helicopter operations

Offshore helicopters operate in challenging environments where exposure to freezing conditions, reduced visibility, or thunderstorms with high winds and lightning can be dangerous. Thunderstorm tracking can give decision makers vital information ahead of time to keep operations running safely and efficiently.

Vaisala Helideck Monitoring Software with site-specific real-time global lightning data

Key benefits

GLD360 is the best global lightning data network with the most powerful detection efficiency and location accuracy.

GLD360 detects, on average, more than 2 billion lightning events every year, which is 5-10 times more than any other global lightning network.

Created with technology backed by 40 years of experience operating lightning detection networks and providing lightning data services.

80% of meteorological organizations worldwide who depend on lightning data to improve safety during severe storms use Vaisala lightning detection network data.

Over 1,000 scientific references have been published on Vaisala lightning detection technology.

Why Vaisala?

Weather and environmental insights are the greatest catalysts for successful maritime operations— from sensors to systems and digital services, Vaisala provides actionable insights that empower stakeholders to confidently meet challenges and harness new opportunities.

Our globally trusted maritime weather solutions enable remarkable efficiency gains, digital transformation, the protection of people and investments while supporting sustainable and responsible operations.

We are scientists and explorers driven by passion, relentless curiosity, and the desire to create a better world. Backed by 85+ years of unmatched scientific leadership, our solutions increase maritime weather awareness and drive innovation.

Built for the demanding offshore environment, Vaisala's Helideck Monitoring System (HMS) integrates the world's most accurate lightning data from the GLD360 global lightning detection network, owned and operated by Vaisala. This gives pilots and helideck operators precise, real-time situational awareness of thunderstorms and lightning risks for efficient route planning without compromising safety.

Vaisala Global Lightning Dataset GLD360, part of our Xweather suite of weather and environmental data services, is now fully integrated with our HMS to bring you total situational awareness of the weather. Get instant mobile or desktop access to thunderstorm and lightning data — in real time and every corner of the sea, beyond the range of radars and independent weather networks. Global coverage identifies 100% of thunderstorms and captures lightning location data with 1 km median accuracy.

Helideck Monitoring Software GLD360 features

- Vaisala Lightning Threat Zone nowcasting enables tracking of nearby thunderstorms for the next 60 minutes
- Strikes & Threat zones data query and visualization is synchronized with GPS coordinates (ship GPS data)
- · 3 alarm zones with configurable distances
- · Configurable data query interval
- Nearest strike (distance) and alarm zone information with Modbus TCP communication

Optional features

- Sends data to Vaisala Automatic Weather Station for additional features such as dry contact alarm control and NMEA output to third-party systems
- Uses fixed coordinates in case of fixed helideck and no GPS data available
- Automatically adds presence of lightning information to CAP 437 pre-flight weather report

