Thunderstorm Manager for Maritime Operations

Product Spotlight

Complete thunderstorm awareness for improved safety and operational continuity

Personnel safety and operational efficiency are critical priorities in difficult maritime operations. Vaisala Thunderstorm Manager, part of our Xweather family of subscription based products, helps operators protect personnel, improve operational resilience, and manage risks from lightning, tropical cyclones and severe storms.
Key benefits

Create per-site alerts to meet or exceed industry standards for safety and compliance. Thunderstorm Manager supports three levels of alerts (information, warning and alarm), custom trigger distances, custom alert areas, and a choice of triggering criteria.

Send alerts and all-clear notifications to multiple email addresses, SMS phone numbers and IoT warning systems. Replay recent storm activity with timeline animation and review the 30-day alert history.

Lightning Threat Zone shows you if storms are moving toward or away from your sites. It visualizes storm cell trajectories and risk areas in 10-minute intervals up to 60 minutes in advance.

Versatile display options let you see what matters most. Map layers include lightning (cloud-to-ground and in-cloud with a color-coded time stamp), satellite infrared, radar, temperature, wind, tropical cyclones, meteorological service alerts and more.

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.

When downtime costs thousands by the minute, a fast and accurate assessment of severe weather risks is critical for maximizing operational efficiency while ensuring worker safety.

Thunderstorm Manager delivers an all-in-one solution for real-time storm monitoring and automated lightning alerts for any location, offshore or onshore, worldwide. It draws data from Vaisala’s GLD360 and NLDN networks — the most trusted lightning detection networks in the world — for uncompromising performance without the need to maintain a lightning detection system or a database of your own.

Cloud-based convenience and an intuitive web-based interface let you monitor threats and alerts from any computer or mobile device with an internet connection.

Applications:

- Monitor storms and tropical cyclones to improve maritime safety, protect offshore assets and improve protocols for helipad operations, cargo transfers and crew exchanges
- Maximize offshore wind farm safety during installation, maintenance and operations with automated alerts and nowcasting of storm trajectories up to 60 minutes ahead
- Automatically warn port workers with flashing beacons, sirens and display screens to stop work and seek shelter. Send all-clear notifications when it is safe to resume work