

VAISALA

Vaisala Helideck Monitoring System

Solutions Brochure



Improve safety and get a better flight plan for pilots

As the leading weather equipment supplier for Helideck Monitoring Systems globally, Vaisala helps offshore helicopters operate safely in challenging environments where the weather can be dangerous. Thunderstorm tracking can give decision makers vital information ahead of time to keep operations running safely and efficiently.

Uncompromising quality for safe & efficient operations

Built for the demanding offshore environment, the Vaisala Helideck Monitoring System integrates the world's most accurate lightning data from Vaisala Global Lightning Dataset GLD360, part of our Xweather family of

subscription-based products. Pilots and helideck operators get precise, real-time situational awareness of thunderstorms and lightning risks for efficient route planning without compromising safety.

With Vaisala HMS integrated with GLD360, pilots and helideck operators can make informed decisions about Waiting on Weather (WOW) to:

- Uplift safety
- Minimize operational downtime
- Improve route planning
- Secure the safety of hoisting operations
- Reduce the cost and impact of weather disruptions

6 ways integrated GLD360 keeps you ahead of the weather

1. Trust the world's most accurate real-time global lightning data
2. Get the lightning data you need now, anywhere in the world
3. See nearby lightning and thunderstorm alerts for the next 60 minutes
4. Gain oceans of actionable insight with full weather situational awareness
5. Save time and resources with maintenance-free lightning data services
6. Safeguard your operations with confidence: 99.99% data availability, 100% lightning detection and compatible connectivity







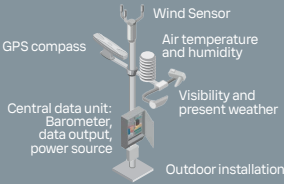








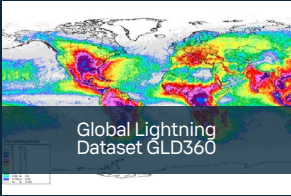
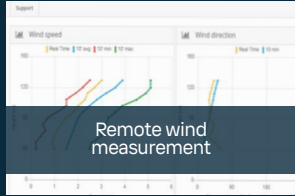
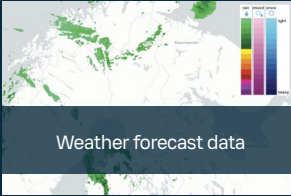


Make the most informed decisions possible with accurate, high-quality weather information

The unique Vaisala HMS provides all key weather and environmental parameters so you can maintain safe, efficient helideck operations no matter what the weather brings. Measurements are based on Vaisala's world-class, reliable sensor technology designed specifically for offshore weather monitoring.

Helideck Monitoring System components

- Automatic weather and environmental observations
- Data collection and processing
- Repeater lights®
- HMS software
- Digital services

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|--|--|--|
|  <p>Wind speed and direction</p>  <p>Lightning data</p> |  <p>Cloud height and visibility</p>  <p>Helideck motion</p> |  <p>Air temperature, humidity and barometric pressure</p>  <p>Waves and ocean current</p> |
|  <p>Outdoor installation</p> |  <p>Helideck motion</p> |  <p>Rack-mounted installation</p> |
|  <p>Do not land</p> |  <p>Use caution</p> |  <p>Safe to land</p> |
|  <p>Display and reporting</p> |  <p>Shared displays</p> |  <p>Real time lightning data</p> |
|  <p>Global Lightning Dataset GLD360</p> |  <p>Remote wind measurement</p> |  <p>Weather forecast data</p> |

Based on world-class Vaisala weather sensors

Wind speed and direction: The accurate, maintenance-free Vaisala WINDCAP® Ultrasonic Wind Sensor WMT700 series includes heating options for harsh environments.

Barometric pressure: The Vaisala BAROCAP® Digital Barometer provides exceptionally accurate readings with low hysteresis and long-term stability.

Air temperature, dew point and relative humidity: The Vaisala HUMICAP® Humidity and Temperature Probe HMP155 provides superior long-term stability with an optional warmed probe for humid conditions.

Horizontal visibility: The dependable and efficient Vaisala PWD series sensors can optionally provide automatic present weather detection.

Cloud height and coverage: The Vaisala Ceilometer CL31 features advanced single lens optics for excellent performance.

Add-ons

Helideck motion: High-quality and accurate helideck motion sensors operate in all sea conditions for floating and mobile installations.

Repeater lights: Providing helicopter pilots a direct visual means of establishing the motion status of the helideck as presented on the HMS display.

Additional options

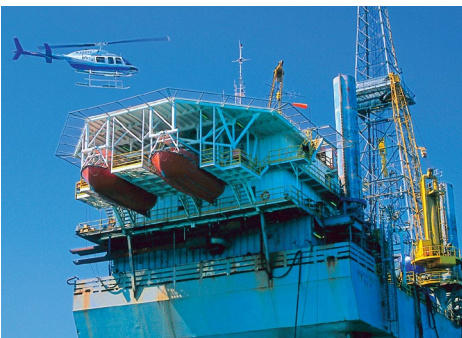
Lightning detection: Vaisala's Global Lightning Dataset GLD360, part of our Xweather suite of weather and environmental data services, delivers the world's most accurate and trusted data on global lightning and approaching thunderstorms.

Weather forecast data: Weather forecasts of waves, water temperatures and tides of the oceans and seas worldwide.

Wave height: Compact, maintenance-free wave measurement system can also measure wave direction.

Ocean current: Acoustic doppler technology provides efficient and accurate data in a rugged design without the need for calibration.

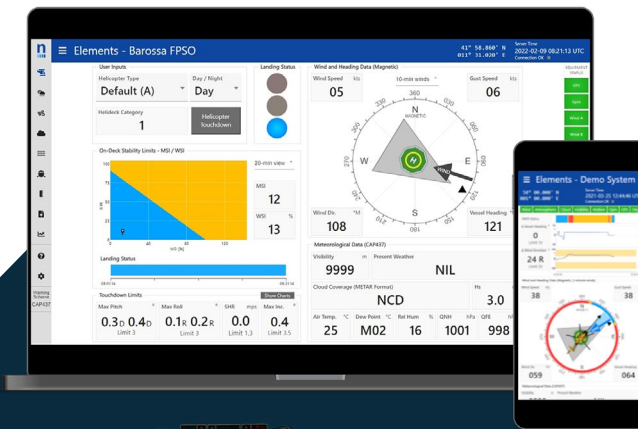
Focus on what matters with built-in industry standard compliance



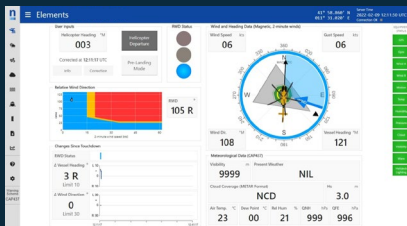
The Vaisala HMS is fully certified and compliant with current CAP 437 and HCA Standard Helideck Monitoring Systems Rev 9b requirements.

Take advantage of CAA-certified software including MSI/WSI warning limits, on-deck relative wind direction with integrated repeater lights and optional lightning detection data. Or, configure the software for compliance with international aviation regulations (Normam-27, BSL D 5-1 and NORSOK). Vaisala also has CASR Part 91 compliant Aviation Weather Systems available.

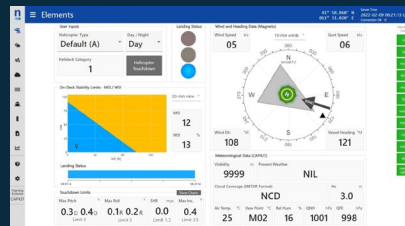
Stay ahead of the weather with real-time, secure and shareable data



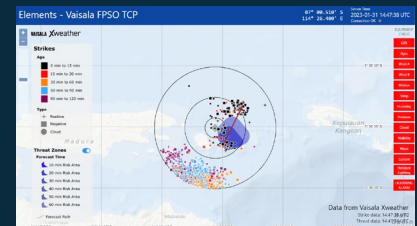
Vaisala HMS
repeater lights



On-deck display



Pre-approach display



Lightning detection display

The Vaisala HMS is a turnkey solution with complete power, sensor integration, data collection and storage. The user-friendly interface keeps you informed of current conditions with a real-time data display, reporting tools and critical alarms so you can keep on-deck personnel safe and ensure optimal landings and takeoffs in the face of changing weather conditions.

Take advantage of modern features including separate pre-approach, on-deck and lightning detection displays, Motion Severity Index, Wind Severity Index and Relative Wind Direction parameters. The solution can also incorporate helideck motion status repeater light signals*. Comprehensive support, upgrading and troubleshooting tools help keep your operations running.

Not only can you quickly check helideck status from any device, you can also share the information with other offshore stakeholders thanks to built-in data security.

Rely on rugged design with turnkey options, a scalable platform and low lifetime costs

The Vaisala HMS provides consistently accurate data from ruggedized, stable technology that doesn't give in to freezing, corrosion, vibration or shock. From standard HMS to our full Offshore Weather Awareness solution—rack-mounted or outdoor installation—you can choose the setup that works for you. The scalable platform can easily expand to meet your future needs.

Take accurate lightning and thunderstorm insights into the future with integrated GLD360 lightning data plus nowcasting, providing conditions in real time and for the next 60 minutes.



Key features

CAP 437 required weather and environmental measurements include Vaisala's wind speed and direction, barometric pressure, air temperature, dew point, relative humidity, horizontal visibility, cloud height and coverage sensors, plus integrated repeater lights and motion sensing unit.

Optional measurements maximize situational awareness with wave height and direction, ocean current, lightning data, weather forecast and remote wind measurement.

Built on world-class Vaisala sensor technology – ICAO industry-proven sensors, trusted by the aviation community, with decades of expertise in demanding offshore weather applications.

Easy-to-use software interface provides complete data in real time with built-in security.

Installation options include rack-mounted or outdoor marine-hardened version for installations with limited equipment space and less field cabling.

Optional automatic audible weather reports are available for helicopter pilots through a VHF radio transceiver.

End-to-end services are included from sensor manufacturing to system design, manufacturing, delivery and support.

Global service and maintenance support are provided through trusted service partners.

Compliant with CAP 437 standards and can be configured for compliance with international regulations (Normam-27 and BSL D 5-1, and NORSOK). Vaisala also has CASR Part 91 compliant Aviation Weather Systems available.

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

Trust the most experienced aviation and offshore weather company in the world. As the leading weather equipment supplier for Helideck Monitoring Systems globally, our suite of solutions is complemented by industry-proven and ICAO compliant sensors built on 50 years of aviation experience.

Integrated with the world's most accurate and trusted lightning data, Vaisala has equipped hundreds of HMS solutions around the world for over a decade, performing to the highest standards and backed by nearly 90 years of measurement expertise.

With local service just about everywhere, know that you're covered if questions arise with global support now – and in the future.

Contact us to start a conversation, and let's create the ideal HMS solution for your needs.

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.

*Optional repeater lights are required for CAP 437 compliance.

