

VAISALA

Vaisala Helideck Monitoring System

Improve safety and get a better flight plan for pilots

Integrated with the world's best lightning data for accurate and reliable weather and lightning information, helideck motion and vessel position in real time for efficient takeoffs and landings without compromising safety

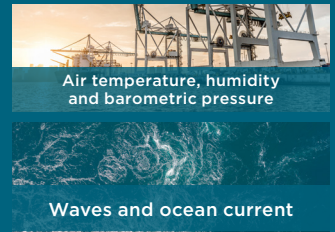
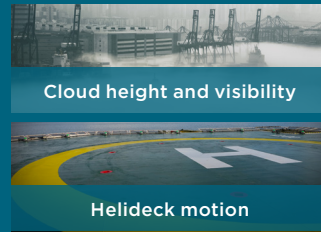


Make the most informed decisions possible with accurate, high-quality weather information.

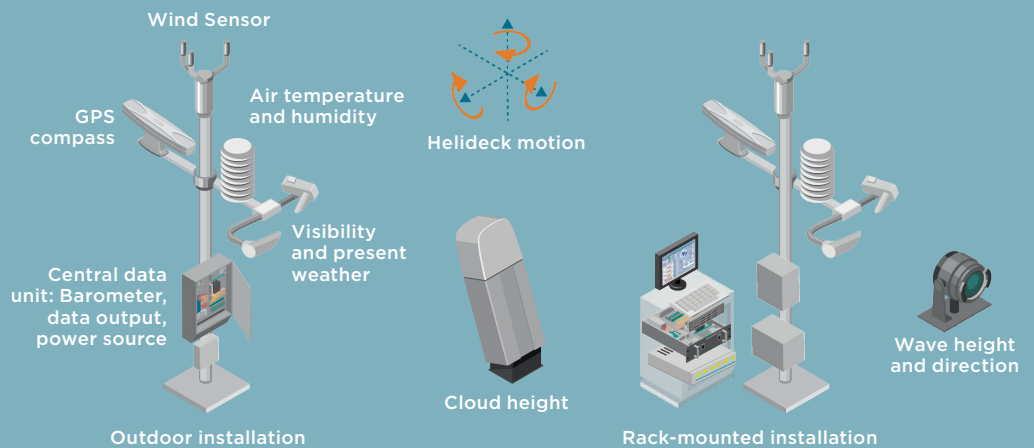
The unique Vaisala HMS provides all key weather and environmental parameters so you can maintain safe, efficient helideck operations no matter what the weather brings. Measurements are based on Vaisala's world-class, reliable sensor technology designed specifically for offshore weather monitoring.

Helideck Monitoring System components

Automatic weather and environmental observations



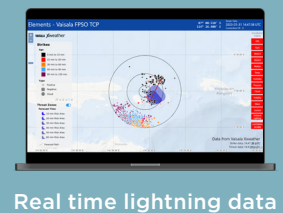
Data collection and processing



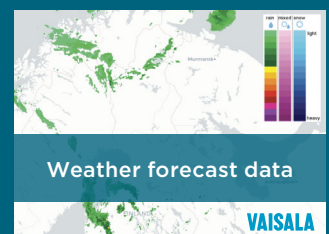
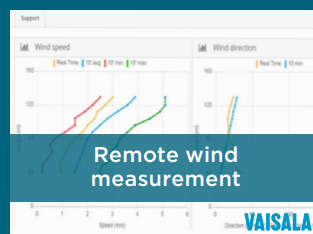
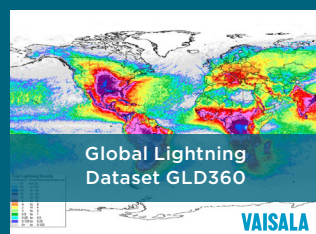
Repeater lights*



HMS software



Digital services



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.

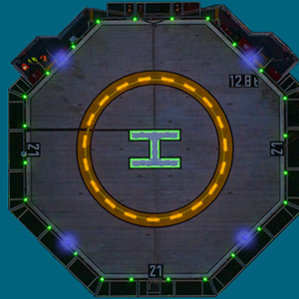
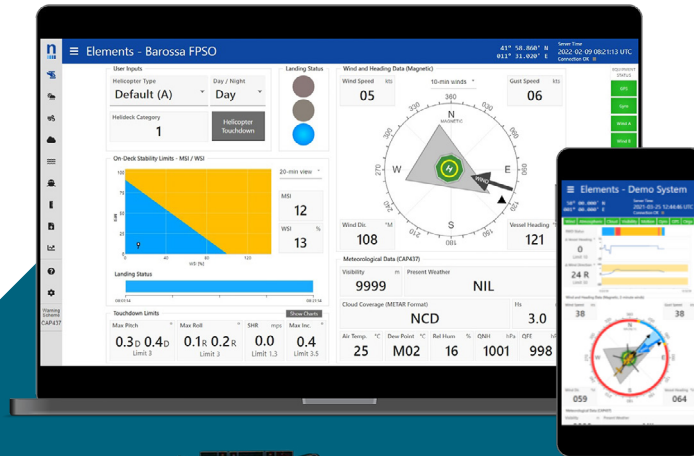
Ocean current: Acoustic doppler technology provides efficient and accurate data in a rugged design without the need for calibration.

Focus on what matters with built-in industry standard compliance.

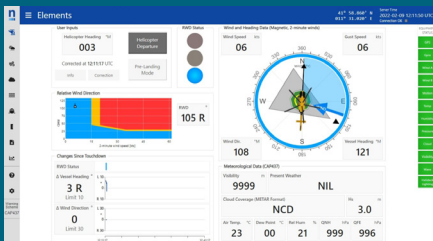


The Vaisala HMS is fully certified and compliant with current CAP 437 and HCA Standard Helideck Monitoring Systems Rev 9b requirements. Take advantage of CAA-certified software including MSI/WSI warning limits, on-deck relative wind direction with integrated repeater lights and optional lightning detection 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.

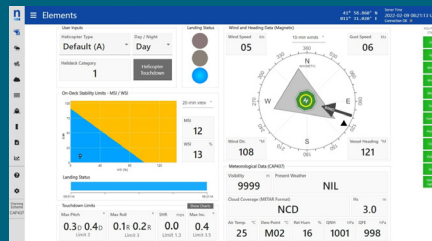
Stay ahead of the weather with real-time, secure and shareable data.



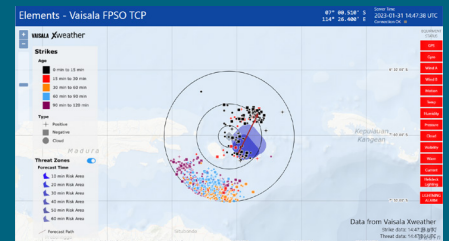
Vaisala HMS
repeater lights



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 optional 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.

The weather affects maritime operations more than any other factor. We'll help you master it.

Weather and environmental insights are the greatest catalysts for successful maritime operations— onshore and offshore.

From sensors to systems and digital services, Vaisala provides actionable insights that empower stakeholders to confidently meet new 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 clean and responsible operations.

Why Vaisala?

We are scientists and explorers driven by passion, relentless curiosity, and the desire to create a better world. Our 85+ years of innovation and global impact are reflected in our guiding principles for maritime:



Master the weather, master the sea

Vaisala enables stakeholders to harness incredible new possibilities while facing increased severe weather risks driven by climate change. We do this by providing the most advanced weather and environmental insights available anywhere. Guided by our weather measurement expertise, we're advancing maritime operations and empowering today's leaders to master the sea like never before.



Currents of innovation

Maritime is evolving, and the currents of innovation are taking us to a more sustainable and weather-aware industry. Vaisala is the world's most trusted partner for helping maritime leaders navigate this evolution. Fueled by our proven scientific leadership and innovative spirit, we have led the way in providing unparalleled weather and environmental solutions across a multitude of industries for generations. We give maritime stakeholders the most comprehensive weather intelligence available so they can innovate across their entire ecosystem to protect of people, resources, and infrastructures.



Oceans of insight

The maritime industry is a complex ecosystem, with valuable information to be found everywhere. In the atmosphere. In the water. In the movements and topographies of the sea. In complex offshore and onshore hubs of commerce. Vaisala's integrated, end-to-end weather solutions are uniquely capable of transforming oceans of information into concrete, practical insights to enable better decision making. These insights turn uncertainty into confidence, risk into readiness, and potential into power. Our preeminent weather technologies give maritime stakeholders a new competitive advantage: the ability to derive previously unattainable insights from everything around them.



Champions for sustainability

Vaisala partners with maritime stakeholders to support a proactive, informed approach to navigating sustainability initiatives. Our unsurpassed onshore and offshore weather intelligence helps the maritime industry achieve cleaner and more responsible operations, stay ahead of regulatory pressures, and confidently manage risks related to extreme weather. This partnership also strengthens the health of Earth's oceanic ecosystems and the communities of which we are all part.

VAISALA

vaisala.com/helideck-monitoring

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, with a suite of solutions complemented by industry-proven and ICAO compliant sensors built on 45+ years of aviation experience. Now integrated with the world's most accurate and trusted lightning data, Vaisala has deployed hundreds of HMS solutions around the world for over a decade, performing to the highest standards and backed by 85+ 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.

*Repeater lights are required for CAP 437 compliance, and Vaisala offers them as an option.



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