

Elements Helideck Monitoring Software

Product Spotlight

Real-time data for real-time safety

Offshore helicopter operations face risks from thunderstorms, high winds, high waves, and poor visibility, leading to safety issues and costly delays.

Vaisala Elements Helideck Monitoring Software ensures offshore safety and compliance with real-time collection, processing and display of accurate meteorological, oceanographic, and helideck motion data.

With lidar wind profiling and forecast mapping, Elements provides first-of-its-kind, real-time weather and forecast conditions in one view to boost safety, compliance and efficiency.



Key benefits

Ensure safety and compliance with real-time, accurate data on weather and helideck motion that adheres to UK CAA CAP437 standard and other international aviation regulations including Normam-27, BSL D 5-1 and NORSOK.

Get all the data you need in one place with comprehensive, real-time tracking of meteorological and oceanographic parameters, helideck motion, weather forecasts, lightning detection, and automatic control of helideck repeater lights.

Enhance operational efficiency including modular integration with wide range of sensors, data sources, Helimet and offshore systems.

Rely on a proven system deployed in hundreds of offshore installations, guaranteeing consistent performance and data quality.

Access mobile data anywhere using cloud-based components for global real-time data distribution with at least 99.95% data availability and long-term archiving, knowing your data is protected with robust security measures.

Benefit from a flexible, modular configuration model that adapts to various site, customer, and regional requirements.

Enjoy a user-friendly interface optimized for desktop and mobile, making data access and visualization straightforward.

Know you're covered if questions arise with our global network of local support providers.

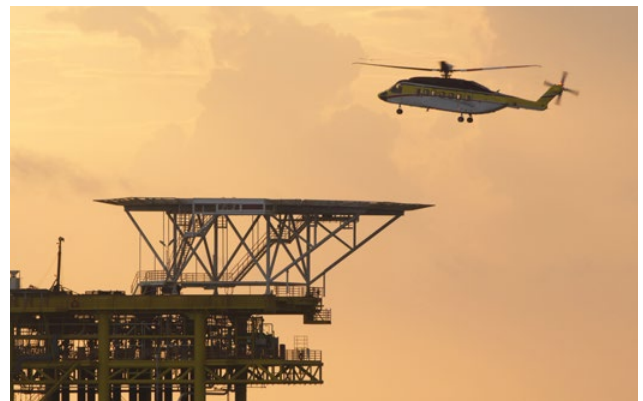
Elements offers modern, user-friendly access to real-time data display and reporting, so offshore helicopter operators can monitor all critical weather and environmental parameters – including forecasts with integrated lightning data. With built-in critical alerts and remote access, you can quickly check and share helideck status and weather conditions from anywhere.

Complying with the latest international aviation regulations, Elements integrates seamlessly with existing systems, offering robust security, reliability, and user-friendly interfaces for offshore helicopter and vessel operations.

Ready integration and data security

An integral part of Vaisala's comprehensive Helideck Monitoring System (HMS), Elements integrates seamlessly with existing systems, enhancing operational efficiency and reducing downtime.

Elements integrates a wide range of sensors and protocols, including Vaisala WindCube® Offshore wind lidar, Vaisala Xweather global lightning detection, Xweather Weather API, and Xweather MapsGL. It can transmit data to cloud platforms such as Elements Online and control systems using Modbus/OPC-UA, ensuring flexible configuration options to meet diverse site, customer, and regional requirements.





Pre-approach display



On-deck display

On-site and cloud components guarantee local data availability from multiple offshore assets alongside global real-time distribution to stakeholders worldwide and long-term archiving. Robust security measures such as encryption, key-based authentication, and independent penetration testing protect your data.

Advanced features include real-time wind profiling up to 300 meters, ATIS control, and compliance with the HCA HMS standard revision 9c for motion data processing, on-deck mode, helideck status calculation, and repeater light control for moving helidecks.

Easy to use, globally trusted

Elements' user-friendly interface is optimized for both desktop and mobile devices, making data access and visualization straightforward.

With hundreds of deployments worldwide, Elements has earned a strong reputation for accuracy and reliability. Elevate your offshore operations and ensure safety, compliance, and efficiency through reliable, secure, and user-friendly 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 nearly 90 years of unmatched scientific leadership, our solutions increase maritime weather awareness and drive innovation.

