

WindCube Offshore

VAISALA

Product Spotlight

The industry standard lidar for efficient, safe turbine install operations

Offshore wind energy is booming, as is demand for Wind Turbine Installation Vessels (WTIV). But the same abundant wind that a turbine is meant to capture can cause significant delays and safety risks during loading, transportation, and installation — especially with next-generation turbine blades stretching to more than 100 meters in length.



Key benefits

Pulsed lidar technology providing constant accuracy up to 300m in any weather/cloud conditions, with excellent data availability and comparatively low power consumption

Ruggedized maritime design with an IP67 waterproof casing, making WindCube Offshore suitable for nearly any ship-mounted application

Includes WindCube Insights – Fleet software for fast insights and simple system management

APIs and flexible system integrations to accommodate various user configurations and existing digital environments

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.

Offshore companies need accurate, reliable wind data on board the vessel to maintain safe and efficient operations – and even more so during harsh weather conditions. Up-to-date wind profile insights increase weather forecast confidence and help maximize weather windows for loading and transportation of turbine components, crane lifting operations, and crew changes.

WindCube® Offshore lidar provides accurate, actionable wind insights in even the harshest maritime conditions. Rigorously validated and extraordinarily flexible, it ensures that wind conditions are measured, understood, and can be acted on in real-time. This provides critical improvements to safety, efficiency, weather transparency, and operational continuity on important WTIV missions.

Applications

- Accurate wind nowcasting for optimized turbine install or maintenance events
- Real-time insights for streamlined supply operations at port or at offshore
- Enhanced situational awareness and short-term forecasting

