WindCube lidars for safe airfield operations

Product Spotlight

Making weather your ally

Protect your pilots & your flight operations from windshear hazards

When it comes to flight crew safety, every landing counts. The invisible threat – windshear – cannot be detected without a reliable remote sensing system, making accurate weather data critical for tactical airfield operations.
Key benefits

Real-time windshear detection and alerting.

In-situ wind measurement in 3D space.

Vertical wind profile up to boundary layer – wind inversion detection.

Compact system, robust and unattended, easy-to-deploy at an airfield.

Proven reliability and accuracy of the WindCube lidar technology.

Easy data integration and display in a weather observation system (AWOS) interface.

Comprehensive and customizable service range for the strongest availability and on-site service intervention.

3-year standard warranty and maintenance service provided with the system.

Why Vaisala?

With over 85 years of experience in weather and environmental technology, Vaisala is the world’s most trusted provider of weather observation systems for tactical operations.

Committed to excellence, we take every measure to ensure our systems are not only comprehensive in their observations but also meet the most stringent performance requirements in any situation.

We provide 24/7 global support, extensive project capabilities and thorough training throughout the entire lifespan of your system to help you make weather your ally when it matters most.

WindCube® Scan Airport Edition wind lidars provide real-time data on vertical, horizontal and combined windshear situations for better flight decision support. With the insight WindCube Scan provides, airbase operators can alert pilots to hold the airplanes on ground or in the air when windshear occurs, then quickly resume operations when windshear stops.

Based on proven technology, WindCube Scan is a compact, dependable, unattended solution ideal for airfield operations. The wind lidar is easy to deploy standalone for wind hazard detection or as part of a comprehensive windshear alert system.

Standalone or part of a system

WindCube Scan can operate either standalone or as a key part of the Vaisala AviMet® Windshear Alert System, in combination with the Vaisala Low Level Windshear Alert System (LLWAS) and Vaisala X-band Weather Radar depending on local weather conditions and airfield needs.

The full Vaisala AviMet® Windshear Alert System delivers crucial information about unpredictable changes in wind speed and direction in a timely and consistent manner — informing immediately when and where windshear occurs and when the threat is over. This increases air traffic controllers’ decision-making confidence as decisions are based on facts, allowing them to issue timely and reliable advance warnings to pilots.