

VAISALA

AviMet[®] Automated Weather Observing System AWOS

The global standard for integrated airport weather observation

[Solutions Brochure](#)



Weather impacts virtually every operation at an airport, and poor conditions can lead to flight delays or even a complete shutdown of operations. At the same time, the aviation industry is challenged by evolving regulations and the drive for operational efficiency.

Vaisala AviMet® Automated Weather Observing System AWOS is the most versatile airport weather system available for safe and efficient airport operations.

We may not be able to control the weather, but with AviMet AWOS, pilots and aviation personnel can have the best situational awareness to mitigate its effects.

As the foundation of the complete AviMet aviation weather management offering, AviMet AWOS provides official weather for major international airports as well as smaller airports and heliports. The system conforms to all relevant International Civil Aviation Organization (ICAO) and World Meteorological Organization (WMO) requirements.

All AviMet systems and solutions are designed to grow with your airport, making them the smart choice for long-term investment with low life-cycle costs. In addition to functioning as the AWOS, the AviMet system can be expanded to include additional systems for Adverse Weather and Runway Management.



Key benefits

Trusted performance and reliability

For more than 45 years, the most demanding airports in the world have trusted AviMet AWOS for its proven long-term performance.

Superior data accuracy and consistency

World-class Vaisala sensors provide the highest level of accuracy and dependability, in real time, in all weather conditions – guaranteed.

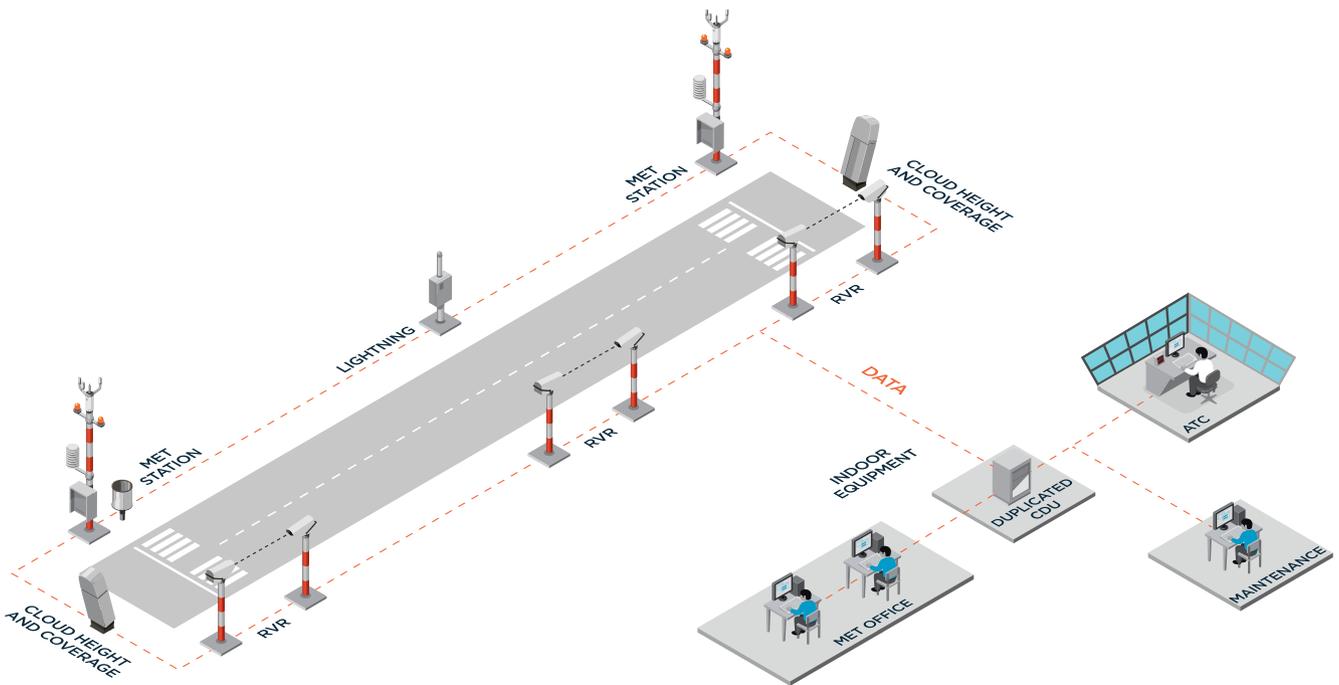
Ease of use and operational excellence

Built with end-to-end aviation use in mind, from sensors to software to integration with external systems for ease of use.

Full service – global and local

End-to-end, expert representative and support network, either through Vaisala's own staff or via our network of partners, helps you maximize your investment no matter where your airport is located.

Key Features



- Field instrumentation adjusted based on the airport's needs
- Scalable to cover non-categorized to CATIII airports
- Provides ICAO and WMO defined reports
- Customizable indoor equipment

A typical AWOS solution consists of the field sensors, central data unit(s), communication interfaces and different workstation types.

System Overview

AviMet AWOS collects, processes, monitors, distributes and archives meteorological data from a dedicated set of meteorological sensors located along the runways. The system consists of:

- Field measurement instruments for collecting data from representative sites along the runway
- Communication equipment for transmitting the collected data to the central data unit (CDU)
- CDU and workstations for processing, archiving and displaying and reporting the weather data

All critical system functions can be duplicated to ensure uninterrupted data flow.

Vaisala will assist you in all aspects of your project – from initial planning through maintenance and lifecycle support. We offer flexible configurations to meet the requirements of your airport and to minimize the installation as well as operation and maintenance costs of the system.

Field Measurement Instruments

Vaisala field measurement instruments are based on decades of research and development in order to offer the highest quality, reliable products that provide the best quality data. Common setups include wind speed and direction, barometric pressure, temperature, cloud coverage, visibility and lightning.

Central Data Unit

The CDU collects data from the sensors and performs meteorological calculations, generates ICAO defined aviation reports, and continuously carries out diagnostics of the incoming data as well as the entire system. The CDU also stores the measured and calculated data as well as the transmitted reports.

Vaisala AviMet AWOS can also be run as a fully automated system without the need for a human observer and can provide AUTO METAR reports.

Workstations and Displays

The number of workstations depends on the system configuration. Each workstation has a preconfigured workstation environment. Any authorized operator can use a workstation, and application access is controlled by policy-defined user rights. Several display options are available, configurable to each user's preference and needs.

Seamless Integration

The AviMet AWOS system architecture ensures smooth integration of meteorological data into any ATM systems, airport-wide service and maintenance systems, and other meteorological systems. The system is continuously developed to meet the latest industry standards. The latest ICAO defined information exchange methods, such as AMHS and IWXXM, are supported.

Data and alerts from remote sensing systems such as wind lidar, weather radar, and lightning detection networks can also be integrated to provide real-time awareness of weather events at or approaching the airport.

Why Vaisala?

For over 45 years, Vaisala has been a pioneer in aviation weather technology, ensuring that every measure is taken for unparalleled safety, efficiency, and sustainability.

Our gold standard suite of solutions is trusted in more than 170 countries and over 2000 airports globally. In fact, every commercial flight around the world will use weather observations produced by Vaisala equipment or forecasts driven by our sensor measurements at some point in their journey.

With a commitment to constantly evolving our portfolio, Vaisala remains at the forefront of the industry, continuously exploring new horizons.

