Automated Weather Observing System

Quality You Can Trust

The AWI Automated Weather Observing System (AWOS) is a fully configurable airport weather system that collects, processes and visually displays meteorological data. AWI AWOS system are deployed world-wide and have been used as the Federal Aviation Administration (FAA) and US National Weather Service (NWS) solution. AWI has installed thousands of systems world-wide, more than any other manufacturer.

The AWI AWOS is compliant with all requirements of the International Civil Aviation Organization (ICAO) and the World Meteorological Organization (WMO) and is one of only two AWOS brands certified by the FAA. The AWI AWOS meets the needs of any airport, from the simplest single runway to large multi-runway CAT IIIIB rated approach airports. In addition, it is fully configurable and scalable, meaning that the AWI AWOS can grow as your airport increases in size.

Architecture

AWI’s Data Collection Platform (DCP) is a powerful microprocessor-based computer system that collects and processes data from the airport sensors and transmits it to the Central Data Processor (CDP) via wired or wireless transmission.

The CDP is a powerful, state-of-the-art data processing and distribution solution that processes sensor data and archives the data, distributes the information to displays located anywhere on the airfield to a central location via web interface.

An integrated GPS clock controls system time with extremely high accuracy. The optional hot-swap configuration of the two CDPs provides uninterrupted service without user or technician intervention. The system archives collected data for up to one year at user-defined intervals and makes it available for review and retrieval.
The AWI AWOS can measure and calculate:

- Wind Speed and Direction
- Temperature
- Dew Point
- Relative Humidity
- Visibility (MOR, RVR)
- Barometric Pressure (QNH, QFE, QFF)
- Present Weather
- Precipitation Type
- Cloud Height & Sky Condition
- Density Altitude
- Runway Surface Condition
- Lightning
- Freezing Rain
- Ground Temperature
- Snow Depth
- Solar Radiation
- Particle Measurement

Camera can also be added to the system.

Flexibility
The AWI AWOS can measure and calculate:

- Wind Speed and Direction
- Temperature
- Dew Point
- Relative Humidity
- Visibility (MOR, RVR)
- Barometric Pressure (QNH, QFE, QFF)

Camera can also be added to the system.

Up to CATIIIb Remote Monitoring Customizable Interface

Installation and Maintenance
The AWI AWOS systems can be designed with optional wireless data links, eliminating expensive trenching and cable runs from the field station to the CDP. The modular design of the AWI AWOS and its built-in-test diagnostics make system maintenance highly cost-efficient. The diagnostic software continually checks each sensor and module of the system for accuracy and proper operation.
MetObserver Data Display and Distribution

Multiple display terminals and workstations with customizable displays can be positioned in a variety of airport and remote locations. Single or multiple displays allow specific weather factors to be closely monitored. METAR, SPECI, SYNOP, MET, SPECIAL MET, and other reports can be automatically or manually generated and edited by the system according to a specified schedule. The AWI AWOS is fully compatible with AFTN, CMHS and other communication protocols, such as AMHS, BUFR and CREX.

The voice system is coupled with a microphone that allows input of two voice remarks, up to 90 seconds in duration each. These NOTAM (notice to airmen) messages are automatically broadcast with the voice data from the AWOS.

Remote Maintenance Monitoring

The AWI AWOS system has full Remote Maintenance Monitoring (RMM) capabilities. This allows maintenance personnel access to the AWOS remotely. It also enables AWI to provide remote diagnostic services to customers around the world. Access to the RMM capability is password protected to ensure security measures.

Contact an AWI consultant for information on an AWOS that fits your airport needs.

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