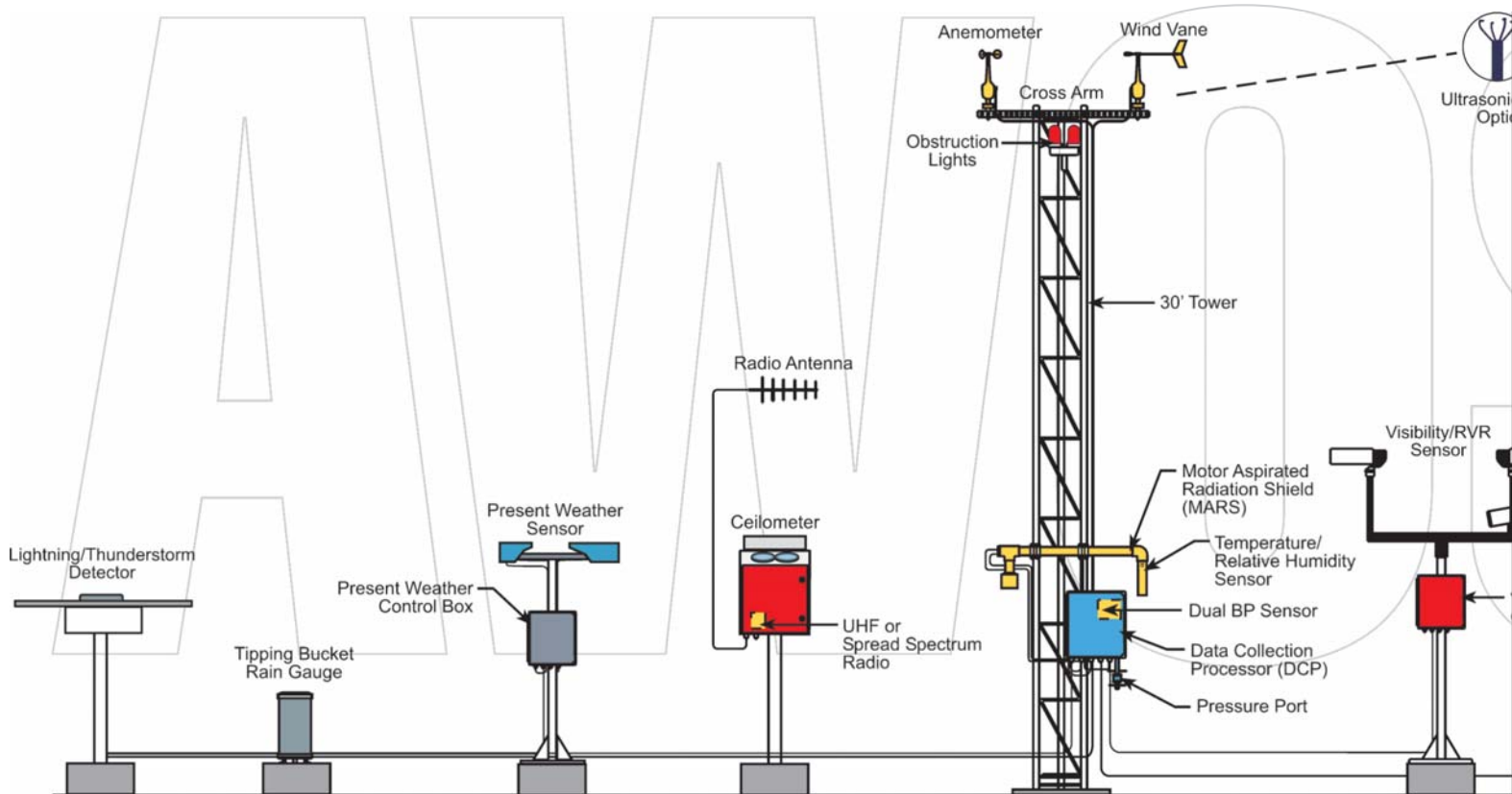


# Automated Weather Observing System

AWOS





***Fast, accurate, and reliable meteorological data is a necessity at any airport. This need can only be met, though, with the proper equipment. The full-featured AWOS from All Weather, Inc. provides a truly integrated presentation of all meteorological data for any airport, from the smallest to the largest.***



### Quality You Can Trust

All Weather, Inc. is the world leader in the manufacture of AWOS systems. Since the award of the contract to supply the United States Federal Aviation Administration (FAA) with 200 AWOS systems, and the National Weather Service (NWS) contract to supply 1000 ASOS systems, All Weather, Inc. has installed more systems than any other manufacturer. Our total now stands at over 2,000 systems.

AWI's AWOS meets all the requirements and recommendations of the International Civil Aviation Organization (ICAO), as well as the World Meteorological Organization (WMO) and the FAA. The system can be adapted to meet the requirements of any size airport, from helipads to fully instrumented CAT IIIB international airports.

### Flexibility

The AWOS sensor array can include any or all of the following:

- Wind Speed
- Wind Direction
- Ultrasonic Wind Speed/Direction

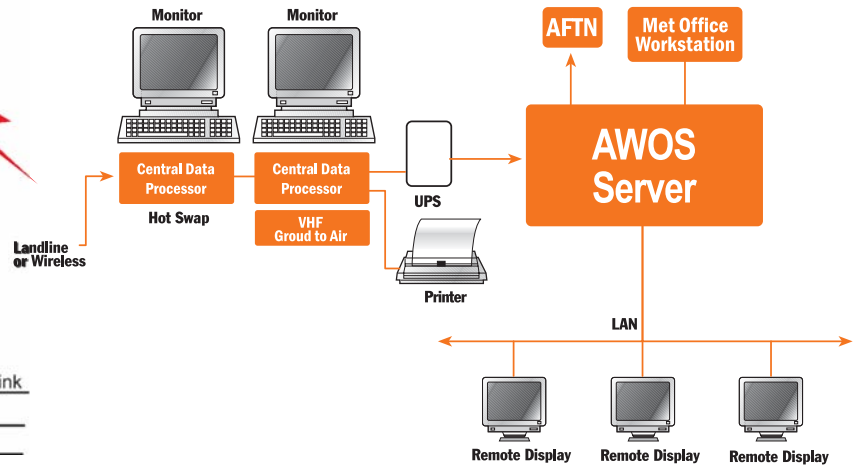
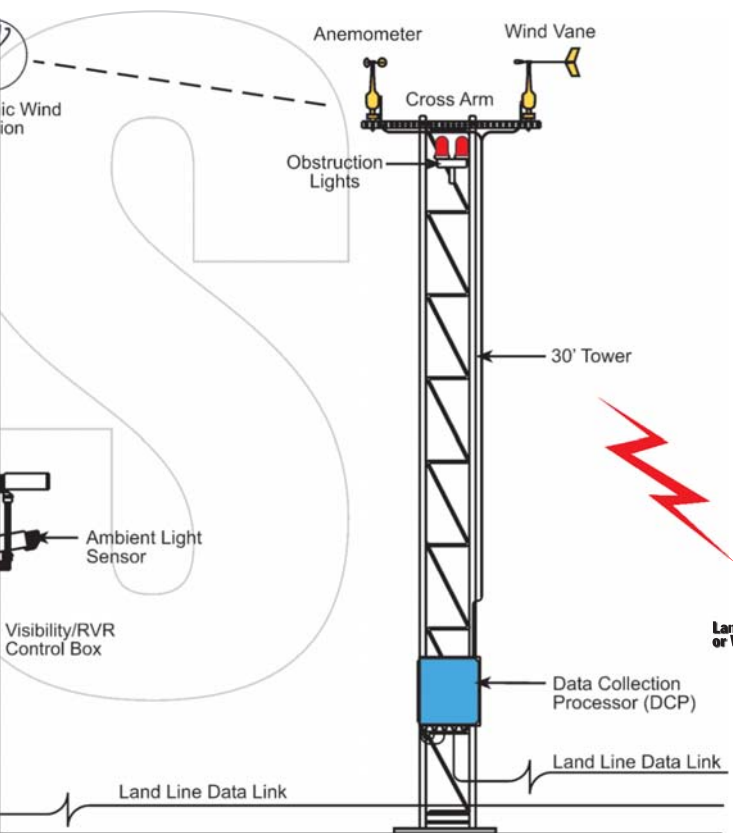
- Temperature
- Dew Point
- Relative Humidity
- Barometric Pressure (QNH, QFE)
- Visibility (MOR, RVR)
- Present Weather (Precipitation Identification)
- Cloud Height and Sky Condition
- Density Altitude
- Runway Surface
- Lightning/Thunderstorm Detection and Reporting
- Freezing Rain
- Ground Temperature

Other synoptic sensors, such as solar radiation, may also be added to the system. Tower choices include stacked, tilt-over, and frangible.

The AWI AWOS supports multiple sensor sites as required for Category I to III B operations. This includes single or multiple position Runway Visual Range (RVR) systems utilizing AWI's Dual Technology Visibility Sensor.

All Weather, Inc.'s Model 8365 Dual Technology Visibility Sensor is a patented design that uses two emitter

# Automated Weather Observing System



heads and two detector heads to generate both direct and indirect energy measurements, which makes the unit the most accurate and reliable method for determining RVR available today. This unique design automatically compensates for errors caused by window contamination, and provides automatic redundancy for improved accuracy and reliability. The 8365-based RVR system has the added advantage of lower maintenance costs, and reduced purchase and installation costs.

Stand-alone RVR systems are also available.

All AWOS sensors are built to the same high quality you would expect from All Weather, Inc. All sensors meet or exceed the requirements of the ICAO, WMO, and FAA for airport equipment.

## Architecture

All Weather, Inc.'s Data Collection Platform (DCP) is a powerful microprocessor-based computer system that collects and processes

the data from the airport sensor arrays and passes it to the Central Data Processor (CDP) via landline or wireless transmission. The DCP is fitted with a battery backup in case of power failure, which will provide sufficient power for the DCP, wind sensors, BP sensor, and temperature/humidity sensor for up to 4 hours. An optional uninterruptible power supply (UPS) provides backup power for the entire system.

The AWOS Central Data Processor, (CDP), is a powerful, state-of-the-art data processing and distribution solution. The CDP receives the data from the various field sensor stations, processes and archives the data, and then distributes it to displays located almost anywhere on the airfield—or in the world—using landline, wireless, or web-based distribution. LAN, WAN, and Ethernet interfaces are built into the CDP. An integrated GPS clock controls system timing with extremely high accuracy, and an integral watchdog timer ensures automatic

restart of the system in the event of a power failure. An optional hot-swap configuration of two CDPs provides uninterrupted service without user or technician intervention.

To ensure collected data is available for review and retrieval, the system archives data for up to one year at user-defined intervals.

- Multiple Runway Installations
- CAT I to CAT IIIB
- Synoptic Sensors
- Plug-and-Play Sensor Set
- Remote Monitoring
- Redundancy
- Multiple Report Generation
- Customizable User Interface
- Excellent Customer Service



# AWOS

**All Weather, Inc. has installed over 2,000 aviation weather systems in more than 40 countries worldwide**

## Data Display and Distribution

The AWOS data is available in graphic format as well as standard reports both on-screen and as hard copy. Multiple display terminals and workstations with customizable displays can be positioned in a variety of airport and remote locations. Single or multiple parameter LCD displays are available to 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 and other communication protocols, such as the FAA's ADAS system.

The data from the AWOS can be voice synthesized to provide a data report for transmission via VHF radio, NDB, or VOR to ensure pilots on approach have the exact weather conditions at the airport. This voice data report is also available by telephone, so that current conditions at the airport can be obtained from anywhere prior to departure.

The voice synthesizer system is coupled with a microphone that allows input of 2 voice remarks, up to 90 seconds in duration each. These NOTAM (notice to airmen) messages are automatically broadcast with the synthesized data from the AWOS. The AWOS also supports a system printer for report generation, error message reporting, and printing of archived data.

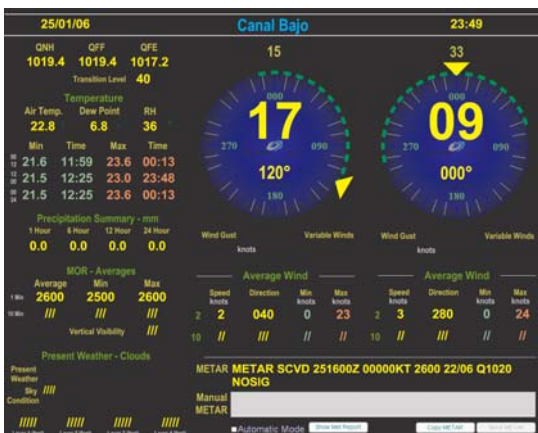
## Remote Maintenance Monitoring

All Weather, Inc.'s AWOS systems have full Remote Maintenance Monitoring (RMM) capabilities. This allows maintenance personnel access to the AWOS from a remote site, such as a regional or national headquarters, via telephone, LAN, WAN, GSM Modem, or PSTN. It also enables All Weather, Inc. to provide remote diagnostic services to customers around the world. Access to the RMM capability is protected by password to prevent unauthorized access.

## Easy Installation, Simple Maintenance

All Weather, Inc.'s AWOS systems are simple and inexpensive to install. All Weather, Inc. provides an easy-to-follow site preparation guide to ensure error-free installation. The optional wireless data link eliminates expensive trenching and cable runs from the field station to the CDP.

Due to the modular design of the AWI AWOS and its built-in-test diagnostics, the system is inexpensive to maintain. The diagnostic software continually checks each sensor and module of the system for accuracy and correct operation. Should a failure occur, it is reported immediately. The diagnostic software will point the technician to the subassembly that has failed, making the mean time to repair (MTTR) for the AWI AWOS the lowest of any AWOS system.



Typical Main Data Display

**Know the exact weather at your airport—Specify an AWI AWOS**



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