

## World-class observations for a world-class airport

How the new Chengdu Tianfu International Airport prepared for heavy air traffic and rapid expansion with the most advanced weather observation technology available



*Fifty-one kilometers from downtown Chengdu in the Sichuan province of China, the nation's fourth largest international airport is now open for business. When all phases are complete, the new Chengdu Tianfu International Airport will include 2 terminals and 6 runways — all to serve an annual capacity of 90 million passengers and 6 million tons of cargo.*



Chengdu Tianfu International Airport, overseen by Southwest Air Traffic Management Bureau CAAC, is an impressive modern airport in an area with distinct seasonal weather. Mild and humid year round, Chengdu's climate ranges from sultry summers to foggy winters — all of which can present challenges to maintaining airport safety and efficiency.

### **The challenge:** Planning for weather and heavy traffic

During the early planning stages, CAAC made safety and efficient operations their highest priorities for the expansive airport. The

organization anticipated heavy air traffic and foggy winter conditions, so they sought the highest quality, most dependable weather observation system: Real-time, accurate weather data would be critical for efficient traffic management.

### **The solution:** Accurate observations for all seasons

CAAC chose a suite of Vaisala systems and sensors, designed exclusively for the aviation industry, to provide the highest level of situational awareness in all weather conditions.

The Vaisala AviMet® Automated Weather Observing System AWOS provides continuous, real-time weather reports for air traffic controllers, meteorological

#### **The client:**

Southwest Air Traffic Management Bureau CAAC

#### **Vaisala provided:**

AviMet® Automated Weather Observing System AWOS

AviMet ICAO Compliant Runway Visual Range System (RVR)

observers and other users, and is fully configurable to cover all of the airport's needs. The system which combines visibility and pressure measurement, lightning detection, and other critical measurements is designed to grow with the needs of the airport.

The fully-automated Vaisala AviMet ICAO Compliant Runway Visual Range System (RVR) assessment and reporting system uses Vaisala instrumentation specifically designed for aviation purposes. For Chengdu Tianfu International Airport, this means having the highest level of accurate information on runway visibility for safe take-off and landing, especially during foggy conditions. The accurate and uninterrupted visibility data helps ensure CAAC, WMO and ICAO compliant determination of RVR for high operational capacity and uncompromising safety.

**The benefits:  
Ready for takeoff with  
maximum uptime**

After a thorough testing phase, CAAC had no doubt they had made the right choice. The solution provides every

measurement needed, including storms and lightning, so decision makers are never caught off guard by changing weather conditions.

ATMB worked closely with local Vaisala aviation solution experts during the evaluation, installation and testing phases. Their professionalism and depth of knowledge gave ATMB confidence that the AviMet AWOS and AviMet RVR systems are built to world-class standards of accuracy, reliability and nonstop performance.

At its inaugural opening, Chengdu Tianfu International Airport boasts the most advanced weather observation technology available. Through every season and phase of growth, the airport will continue to keep airport operations running safely and efficiently.

*“With the rapid growth of Chinese civil aviation traffic, it is critical to help air traffic controllers and staff members to make accurate decisions and ensure flight safety and continuity. The AWOS system has been widely constructed and applied to various general and civil transportation airports. We are confident this system will support safe and efficient operations, both now and in the future.”*

*Southwest Air Traffic  
Management  
Bureau CAAC*

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