



Dammam and Riyadh Airports

MicroStep-MIS Success Story

Client:	Presidency of Meteorology and Environment, Saudi Arabia
Contractor:	Jeraisy Computer & Communication Services
ICAO category:	CAT III



Presidency of Meteorology and Environment (PME)
is responsible for environmental protection, pollution control, and establishing environmental quality standards.



Saudi Arabia map with Dammam and Riyadh Airports

The Dammam and Riyadh Automated Weather Observation Systems were the beginning of participation of MicroStep-MIS in large-scale global projects.

Riyadh

King Khalid International Airport (ICAO: OERK, IATA: RUH) is located 35 kilometers (22 mi) north of Riyadh, Saudi Arabia, designed by the architectural company HOK. The airport includes terminals, a mosque, the control tower and two parallel runways, each 4,200 meters (13,800 ft) long. It has been constructed to meet the increasing international and local air transport requirements for the region of Riyadh.

Dammam

King Fahd International Airport (ICAO: OEDF, IATA: DMM) is located 20 kilometers northwest of Dammam, Saudi Arabia. The airport is the third major hub for Saudi Arabian Airlines, and used to be a hub of the now defunct Sama Airlines.

During the audit in 1999, several applications of the Automated Weather Observation Systems at the Dammam and Riyadh airports were found unprepared for the Y2K problem (the Millennium bug). This caused the Presidency of Meteorology and Environment (PME, former Meteorological and Environmental Protection Agency, MEPA) to ask its supplier to solve the problem. By the time the Riyadh airport was already in operation, the Dammam airport was only scheduled to be finished by the end of 1999.

Due to the fact that the issue with AWOS installed at the airports was a serious one, the supplier rejected to upgrade the system because of insufficient time.



Dammam airport

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Directorate General of Civil Aviation and Meteorology of Oman, for whom we commissioned the new AWOS at Muscat-Seeb International airport in 1998, recommended MicroStep-MIS to MEPA for a complete system changeover.

After MicroStep-MIS accepted the challenge, busy times started, as the schedule was extremely tight. Fortunately, MicroStep-MIS managed to provide the essential AWOS functionality for the ICAO CAT III category airports at Dammam and Riyadh on December 23rd, 1999, allowing the airports to be in operation for commercial traffic.



Riyadh airport

Challenge

- To deliver and deploy the IT part of the AWOS for the CAT III airport within few months (Dammam airport was under construction)
- To install the complete communication infrastructure, the dual hot failover Central System and more than 45 client computers and displays over the airports including ATIS/VOLMET service
- To interface numerous existing systems (radars, satellite receivers, ATC system, Low level windshear alert systems)
- To ensure smooth system transition before December 31, 1999

Our solution

- Installation of the FSK modem line network using the existing cabling
- Deployment of the IMS 3 AWOS system including Central Computers, Observer and Forecasting workstations, Briefing workstations, Aviation Weather Displays

Achievements

- First installation of the IMS AWOS systems at CAT III airports (8 x RVR, 4 x ceilometer, multiple AWS)
- Briefing workstations processing codes (METAR, TAF, SIGMET) from all around the world
- Project followed by the installation of the IMS Observer Workstations at 25 local airports in 2002 and comprehensive radiation monitoring system in 2004