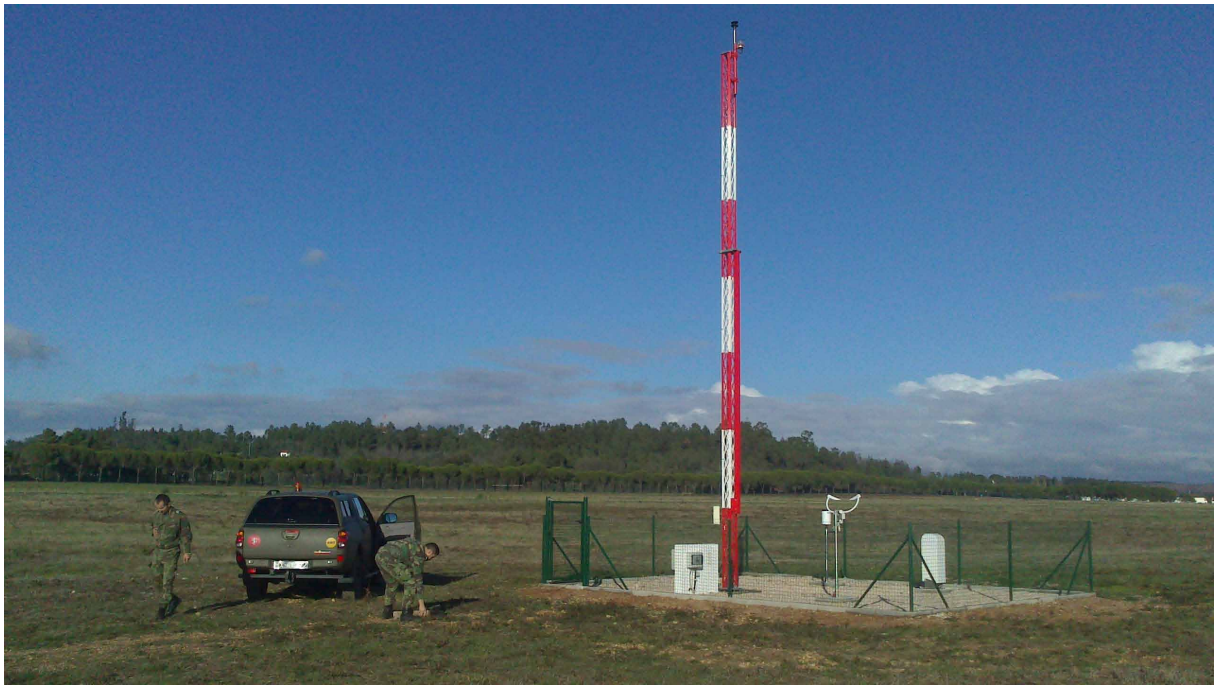
CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

Cloud Base & Visibility Sensors for Aviation

Automatic Weather Station To Support The Operations Of A Military Air Base

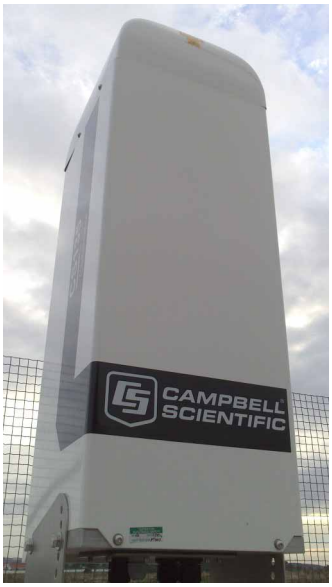


AUDIMOBIL recently installed in a Portuguese Military Air Base, an Automatic Weather Station for supporting the air operations, in accordance with ICAO and WMO recommendations for equipment and infrastructures.

The system was fitted with a set of sensors oriented for this application and can be expanded in accordance with future needs.

SENSORS AND DATALOGGER

- Datalogger Campbell Scientific CR1000
- Ceilometer Campbell Scientific CS135
- Visibility sensor Campbell Scientific CS120
- Air temperature & relative humidity Vaisala HMP155
- Barometric pressure Vaisala PTB330 (2 Class A sensors)
- Precipitation sensor R.M. Young 52203
- Wind sensor Gill WindSonic



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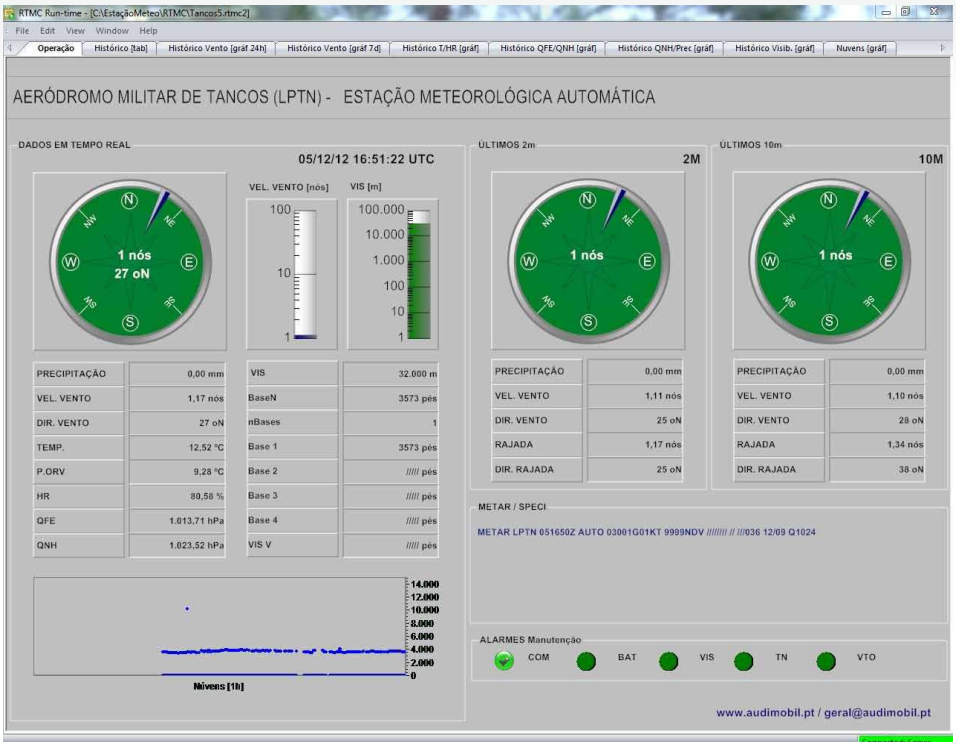

Case Study Summary

Appication:
Military Air Base Operations

Location:
Portugal

Organisation:
Audimobil

Campbell Products Used:
CR1000, CS120 Visibility Sensor, CS135 Ceilometer

Measured Parameters:
Cloud Base
Visibility
Temperature
Relative Humidity
Wind Speed & Direction
Barometric Pressure
Precipitation

INFRASTRUCTURE/ COMMUNICATIONS/ POWER

- Red and white painted frangible mast with ICAO type A Obstruction Light ;
- 2.4 GHz Radio communications with central PC;
- Mains power supply with backup battery .

In order to make it easy the readings of the information generated by the station, easy reading interface was developed, with instantaneous information from several sensors, and the processing of these information, which speeds the decision making.

Highlights:

- Graphic and numeric real time information;
- Processing of average and running totals for the last 2 and 10 minutes;
- Automatic generation of METAR and SPECI codes;
- Graphic and numeric historical information of the station;
- Validation of the sensors information;
- The station history is maintained in a file registry;
- Maintenance Alarms.