



## SIOMA

### Airport Weather Observing System

SIOMA has been developed to measure, gather, process and display the MET parameters for the airport meteorological office, ATC Tower and airport operations staff.

SIOMA integrates the latest technologies in terms of software and hardware design using a WEB client-server technology using a robust data transfer protocols.

SIOMA provides a remote supervision of the field sensors, simplifying maintenance operations.

#### The SIOMA system includes the following major subsystems :

- Meteorological sensor suite (based on DEGREANE HORIZON automatic weather data collection unit, transmissometer, ceilometer and Present Weather) located at runway threshold and met park / garden.
- A Data Collection Unit (DCU) acquisition platform based on a client/server architecture including a SQL type data base and a WEB server. The redundancy and the security of the system are assured by the use of SAN and/or RAID disks in conjunction with a highly configurable user management policy (based on users or job groups such as maintenance, observer, controller...)
- CAOBS Chrome suite software for Observer, Forecaster, Maintenance and ATC working positions allowing the display of the all meteorological parameters, the observation parameter input and the validation of the aeronautical messages and the coding of synoptic messages.
- A set of panel mounted INT300 or VISU PC digital indicators used as back-up.



# AN INTEGRATED SYSTEM FOR

## ● Main advantages

- SIOMA is designed as a fully modular and configurable **Airport Weather Observation System** in accordance with the latest WMO and ICAO recommendations and standards.
- SIOMA fulfils the operational requirements of all airport types, from small VFR airfields to large international CAT IIIC airports.
- SIOMA can be easily updated to new technical and operational requirements (new runways, higher airport category etc...).
- SIOMA can be easily upgraded by integration of additional equipment such as wind profiler for windshear detection or weather radar for vertical analysis of storm systems and hail warning.
- Remote access to field sensors through a proprietary Ethernet Protocol improves maintenance operation



**CEILOMETER**



**WIND PROFILER**



**TRANSMISSOMETER**



# THE WHOLE RANGE OF AIRPORTS



## ● Main SIOMA functions

### Easy encoding of WMO/ICAO standardized reports

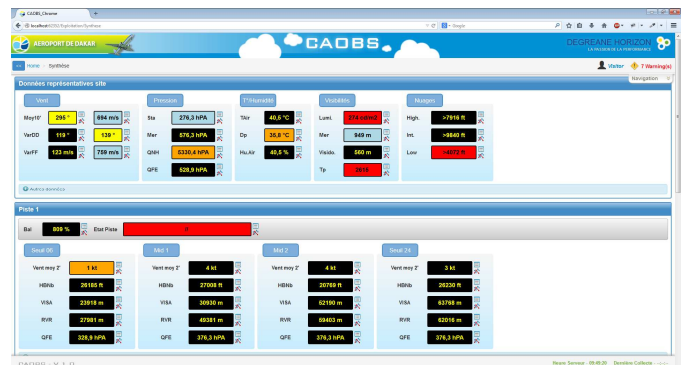
- Automatic data collection through field-proven network. Observed parameters input and computer-aided report edition of METAR, SPECI, MET REPORT, SYNOP.
- Automated report transmission to ATC services on AFTN/AMHS or SMT network, to ATIS system and to local distribution network.
- Specific configuration for each type of meteorological parameters (declare a sensor present, calibration coefficient ...).

### Comprehensive meteorological data display AEROVIEW

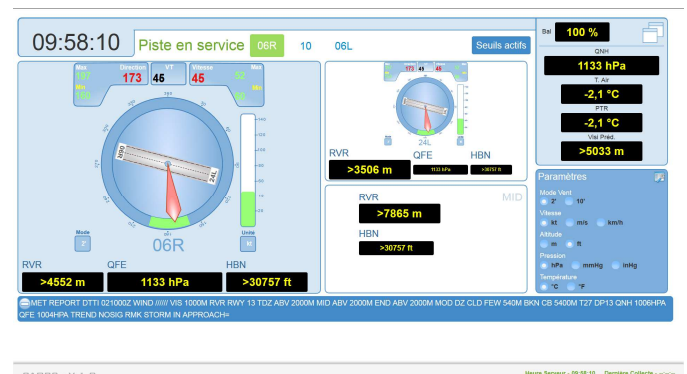
- Real-time information (including wind shear alert report) available for all airport users.
- Personal interface in accordance with the user needs.

### Real-time management, storage, consultation and printout of MET data

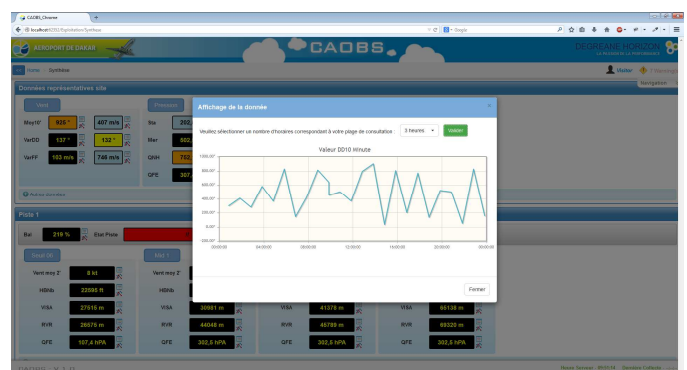
- Automatic data recording of all parameters with one minute resolution.
- Easy sensor set-up with selection / deselection / substitution.
- Immediate access to one or more parameters and reports over a selected period. Data display and printout in both alphanumeric and graphic formats.



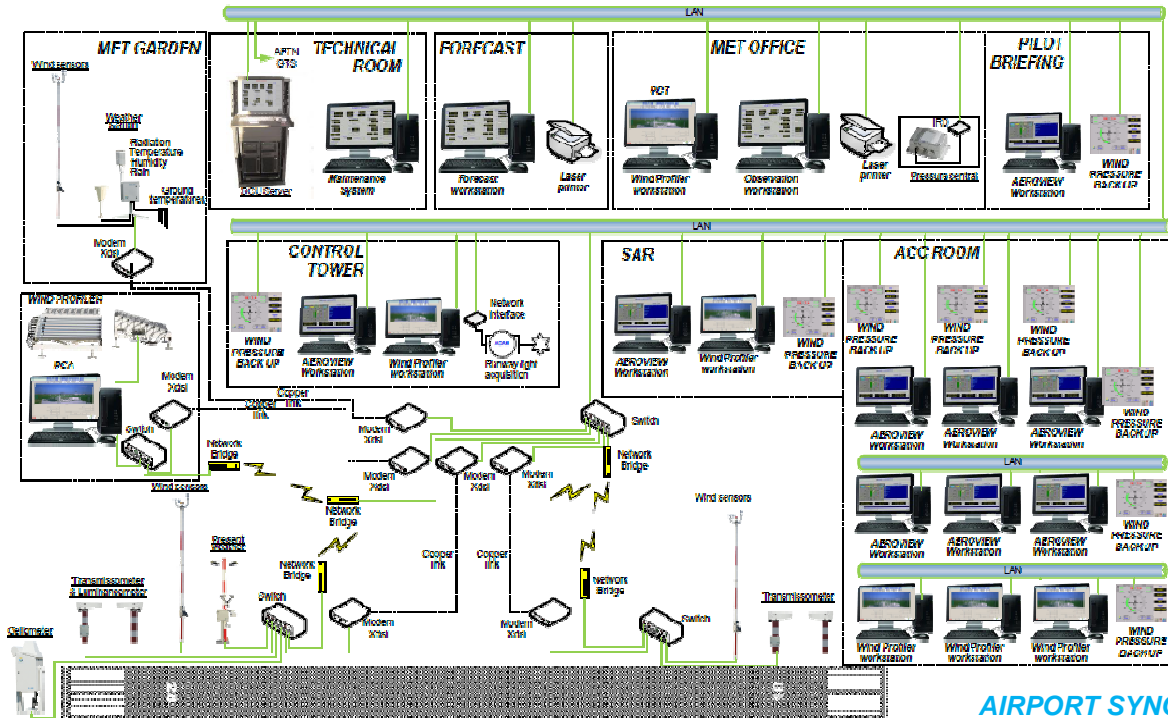
METAR CODING



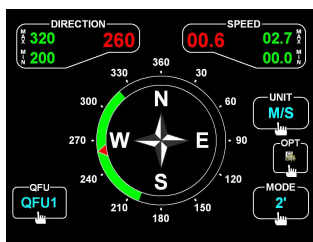
AEROVIEW



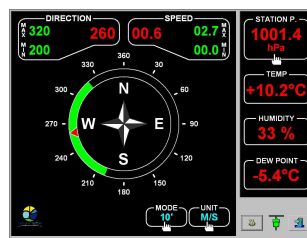
GRAPHIC DATA DISPLAY



AIRPORT SYNOPTIC



VISUVENT PC



VISU PC



INT300



DEGREANE HORIZON reserves the right to change above mentioned specifications without prior notice.



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