

## **Siting Classification for Surface Observing Stations on Land**

Michel Leroy, Météo-France  
michel.leroy@meteo.fr

Several factors have an influence on the « quality » of a meteorological measurement: the intrinsic characteristics of sensors or measurement methods; the maintenance needed to maintain the system in nominal conditions; the site representativeness.

Environmental conditions on a site may generate measurement errors larger than the uncertainty of the instrument itself, whilst more attention is usually being given to the instrument itself. WMO/CIMO has clear recommendations about siting and exposure of instruments. But they are not always possible to follow and this is scarcely documented.

Several years ago, Météo-France defined a siting classification for wind, temperature, precipitation and solar radiation, ranging from 1 (WMO recommendations) to 5 (bad environment to be representative). It has been applied and proved to be efficient both to document the siting and to improve it, by rating it.

Recently, an expert meeting was organized by WMO, to cross experience on the subject and to define a siting classification for Surface Observation at Land. This classification will be proposed for validation by the next CIMO-XV in September 2010.

Considering also the various metrological characteristics of the equipment used in different surface networks, Météo-France defined also another classification, called "maintained performance classification", including the uncertainty of the instrument and the organization of preventive maintenance and calibration.

This complementary classification was also discussed within the expert team of WMO, but was not considered enough mature to be proposed to CIMO for validation.

The principles of these two classifications will be presented, along with the experience of Météo-France in applying them.