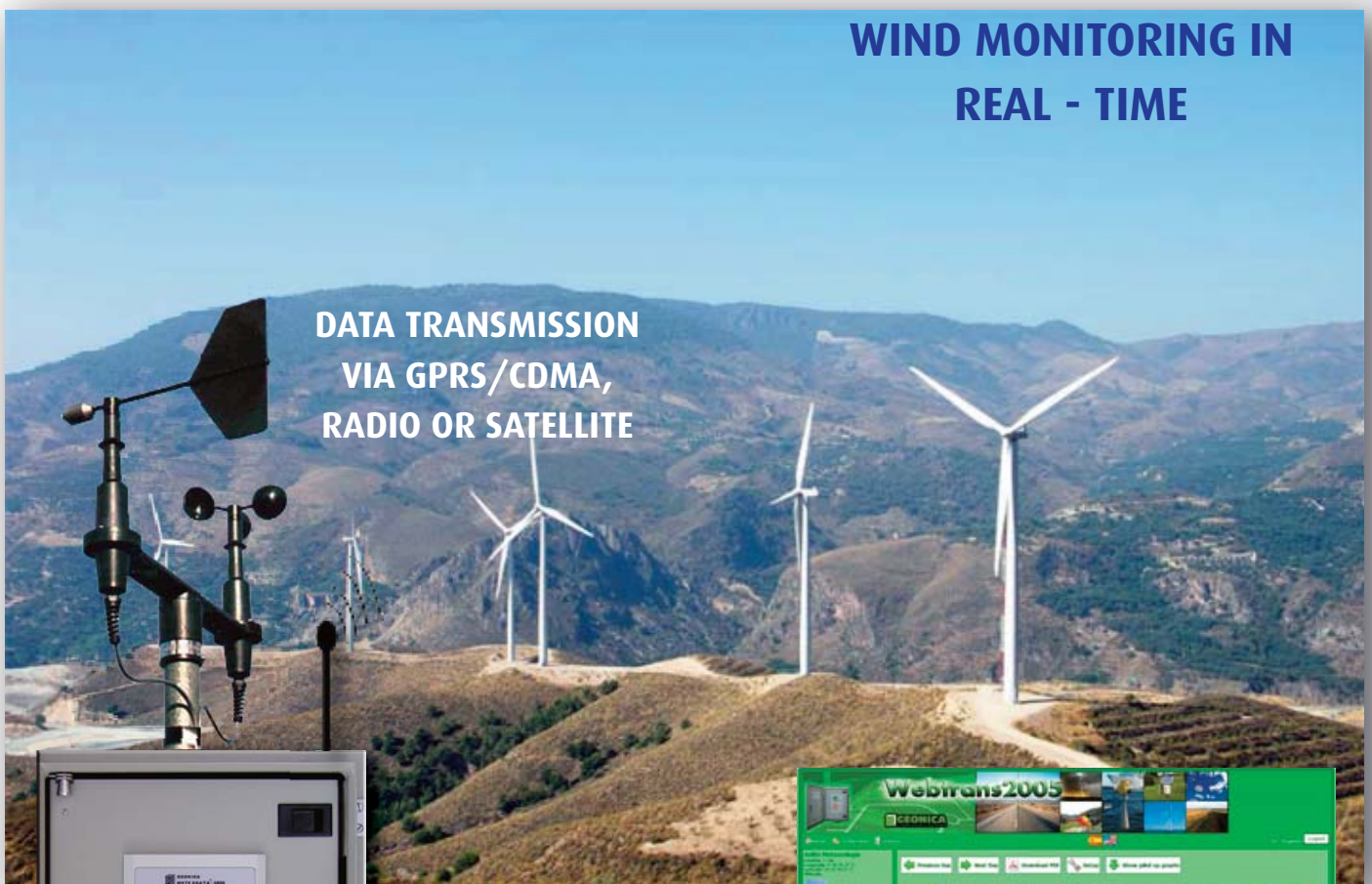




WIND POWER SYSTEM

- WIND ASSESSMENT
- WIND PROPECTING
- TURBINE PERFORMANCE
- REMOTE MONITORING
- AUTOMATIC SMS and Email
- ALERT MESSAGES



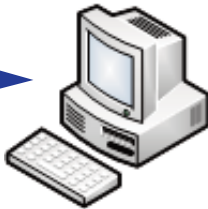
WIND MONITORING IN REAL - TIME

DATA TRANSMISSION
VIA GPRS/CDMA,
RADIO OR SATELLITE



**REMOTE TERMINAL UNIT
DATA LOGGER & TRANSMITTER**

OPTIONAL
LOCAL CONNECTION
ETHERNET, etc...



WEB - POSTING

Real - Time graphic presentation and data download via internet



SYSTEM DESCRIPTION

The **Wind Power System** has been designed around the Remote Data Acquisition and Transmission Unit, Model METEODATA-2000/3000C Series, working as a data logger, PLC and RTU device, combined with a dedicated management software package.

This advanced wind monitoring system allows you to determine whether your site is a good candidate to harvest wind power, as well as to carry out many other additional measurements, to operate as a remote controller, or to generate programmable alarms.

Remote monitoring for retrieving data or reporting site conditions can be made via GPRS/CDMA cellular network, radio link, satellite, Ethernet, etc... as well as via INTERNET by means of the WEBTRANS Platform optional service offered by GEONICA (Web Posting).

In particular, GPRS/CDMA, cellular network, is a very efficient and inexpensive method for transmitting wind, meteorological and turbine data in near real-time, allowing also to remotely detect if all sensors on the met tower are functioning properly, preventing significant data loss and reducing, at the same time, maintenance costs.

Our Remote Data Logger Model METEODATA-2000/3000C Series incorporates a built-in GPRS or CDMA modem, that also allows a user to call into the logger and view live data at the site, as well as to download data site conditions and even to change data collection parameters or to program new alarms, all remotely from the user's computer.



Mounting the wind sensors and the Data Logger / Transmitter, on a 60-meter stainless steel meteorological tower



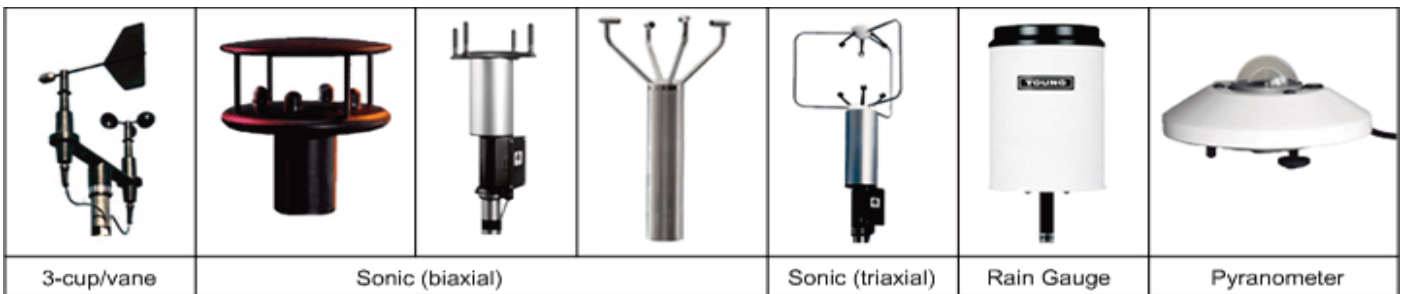
METEODATA-3000C Data Logger, a high gain GPRS transmitting antenna and a Solar Panel, mounted on the met tower

DATA LOGGER AND COMMUNICATIONS

- # Analog and Digital input Channels (16, 24 or 32)
- # Battery operated. Very low power consumption (less than 10mA @ 12V)
- # Long term unattended data collection (64 MB memory)
- # Very high resolution (20 bit A/D converter)
- # Time- stamped data recording allowing historical analysis
- # Remotly programmable (data collection and automatic alarms)
- # METEODATA-2000/3000C Series datalogger incorporates a GPRS/CDMA modem for communications via digital cellular networks.
- # Ethernet, radio or satellite links are also available options.
- # Additional Technical information about our Data Loggers can be found in the following documents:
 - Brochure nº 9722.0039 (2000C Series)
 - Brochure nº 9722.0044 (3000C Series)



WIND AND OTHER METEOROLOGICAL SENSORS AND TURBINE PARAMETERS



- # Choice of Sonic, Propeller or conventional 3- cup anemometer and vane
- # Turbine parameters (current, voltage, power, etc...)

- # Additional meteorological sensors as Temperature, Humidity, Solar Radiation, Atmospheric Pressure, Precipitation, Present Weather, etc... optional.

MET TOWERS

- # Stainless Steel Towers of up to 50, 60, 85 or 100 meters height.
- Wind and other sensors, can be mounted anywhere along the length of the tower.

WEB POSTING

Near real-time data and graphical presentation of all measured parameters via INTERNET, by means of the optional WEBTRANS Platform Service offered by GEONICA.

MET TOWERS

- # Colour webcams can be connected to the METEODATA remote unit for still images transmission over the same communications network used for wind and meteorological data.

