

The storm phenomenon

When a storm nucleus approaches or forms, the electrostatic field at ground level changes in a significant way. Under normal conditions, flat land, sunny weather and without a point effect, the electrostatic field has an approximate value of 120 V/m.

In the presence of a storm nucleus, the field can grow up to dozens of times of kV/m. The creation process of these storm nuclei takes around 20 minutes.

Previstorm System

The **field mill** utilized by the **PREVISTORM**[®] is the only one able to preventively detect lightning phenomena. A lightning strike is not needed in order to detect some type of storm activity.

The Previstorm system is composed of:

- An exterior field mill type sensor
- A Data Acquisition Module (MAD)

The **field mill** permits dynamic measurement of the electrostatic field evolution.

The **Data Acquisition Module** permits:

- The control and configuration of the system.
- The visualization of the field value.
- The activation associated with each level alarm.
- The visualization of the parameter configurations.



- Electricity
- The environment
- Open air areas
- Meteorological investigation centers
- Telecommunications
- Airports
- Hydraulics Co.
- Thermic and nuclear centers
- Chemical & Petrochemical industries
- Eolic and Solar plants

We ahead of the storm

The **Software** is designed to work under Windows Operating System. It is a tool designed to provide telecontrol functions in storm section systems, visualization functions and the analysis of the evolution of the electrostatic field. Permitting, among other functions:

- Graphically visualize the field evolution in real time.
- The analysis and treatment of the electrostatic field measurement signal.
- Setting level alarms by user.
- Store the data for analysis



Monitoring the electrostatic field variations of area, along with the historical data, we can securely anticipate (approx. 20 min.) the first electrostatic discharge and because of this, activate the adequate security protocols.

Advantages

PREVISTORM[®] is a valuable information system which permits, in real time, making security decisions against lightning discharges and/or the electrostatic accumulation charge, guaranteeing the safety of the people and of the material goods.

- 1 **Activate** the security protocols.
- 2 **Guarantee** the quality services and avoid production problems
- 3 Increase the level of protection.
- 4 Avoid the unnecessary deterioration of the protection systems. Guarantee the sensible devices operation reducing its maintenance costs.