

# Forecasting extreme events of rain

Mr. Vicente Perez and Mr. Santiago Salson from MeteoGalicia, as well as Mr. Joaquín Baumela and Mr. Francisco Torrente from Quatripole visited Vaisala in November 2008. The purpose of the visit was to carry out Factory Acceptance Tests (FAT) for the Vaisala Weather Radar WRM200. The radar will be installed in Galicia, northwestern Spain, in summer 2009. MeteoGalicia is responsible for the local weather forecasts and warnings in the Galicia region, and Quatripole is the local engineering partner for the installation project. MeteoGalicia depends on the regional government of Galicia, Xunta de Galicia. All their information, also regarding the new radar products, is available at [www.meteogalicia.es](http://www.meteogalicia.es).

The purpose of the FAT tests is to verify the system performance against given specifications and to ensure that all parts of the system and its documentation exist according to the purchase order. Hundreds of Vaisala customers from around the world visit the company every year to participate in different FAT tests. It is a great opportunity for both parties to get to know each other a little better, and to ensure mutual understanding of the required system qualities.

The radar is a part of a weather observation solution, which Vaisala is providing to the region of Galicia. In addition to the dual-polarization weather radar, the solution consists of a lightning detection network of four sensors and a sounding

system, as well as a five-year service contract.

## Fewer rainy days - more intensive rain

The Galicia region's coastal areas in the west and north are open to the Atlantic Ocean and its challenging weather conditions. Severe storms and thunder are common and cause damages each year.

"Research on the effects of climate change has been carried out in Galicia. It found evidence that there are more extreme events of rain in the area than in the past. There may be fewer rainy days, but when it rains it is more intensive. There are clear risks relating to this; villages and small towns close to rivers or the sea may suffer damaging floods," says Mr. Vicente Perez from MeteoGalicia.

"The new Vaisala radar will benefit us in many ways. It will improve our capacity for civil protection as we will be able to issue more accurate warnings. The data gained will complement measurement data from other instruments, and we will be

*From left to right: Joaquín Baumela, Quatripole and Santiago Salson Casado and Vicente Perez Muñuzuri from MeteoGalicia at the Vaisala Factory Acceptance Tests for the Weather Radar WRM200. Vaisala's Timo Lyly on the keyboard.*

*The Spanish region of Galicia is vulnerable to extreme weather events due to its location by the Atlantic Ocean.*

able to assimilate the information into our numerical models. The radar will also be used for more long-term climatological research. Our university researchers are already enthusiastically waiting for the radar data," Mr. Perez smiles. "Cyclone Klaus, which hit the North of Spain and France in January 2009, is just one example of a situation where we could've benefited from the new capabilities offered by this kind of radar."

The new and improved weather observation network can also be used for providing new kinds of services to local interest groups affected by weather, such as fishermen, shellfish fishermen, clam pickers, electrical power companies and recreational agencies. Regional weather forecasts on TV are also expected to improve.

