An automatic surveillance tool for Flash-Floods precursor events

K. Otxoa de Alda (1,2), S. Gaztelumendi (1,2), J. Moreno (1,2), R. Hernandez (1,2), J. Egaña (1,2), I.R. Gelpi (1,2)

(1) TECNALIA - Meteo Unit , Miñano - Alava, Spain, (2) Basque Meteorology Agency (EUSKALMET) Miñano - Alava , Spain

In this paper is described a Flash-Floods precursor events surveillance tool that improves the efficiency and capabilities of a meteorological warning operational system. The main objective of this tool, developed in .NET under Windows environment, is to establish an automatic warning system based on the surpassing of predefined thresholds. The system is focused on the surveillance of convective situations that can generate intense precipitation, in a short period of time, in Basque Country area.

The application consists of four different modules: monitoring, treatment, dissemination, storage and exploitation, based on analysis of datasets coming from several sources directly managed by Euskalmet (Basque Meteorology Agency), e.g. Automatic weather stations network, radar and Meteosat imagery.

The system has been used successfully in Euskalmet in an operational basis since January 2012. Finally we present the conclusions obtained after the first months of operational use and the study of some scenarios.