

2.24 USING EUSKALMET RADAR FOR ANALYSIS OF A HEAVY STORMS EVENT IN BASQUE COUNTRY DURING SUMMER: THE 30 AUGUST 2017 CASE

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In this work a study of a very heavy showers summer episode (30 August 2017) is performed focusing on synoptic, mesoscale and local aspects based on different data available in the studied area including Radar products provided by Basque Meteorology Agency (Euskalmet). Euskalmet radar is sited in Kapildui Mountain (1174 m) near the capital of Basque Country (CAV), is a METEOR 1500 Doppler Weather Radar with Dual polarization capabilities. This radar is based on a Klystron transmitter system and operates in C-band frequency.

During the study day, the synoptic configuration is marked by a deep trough of Atlantic origin and a surface anticyclonic wedge situation. During the day a front sweeps the Cantabrian coast, causing stormy showers in the CAV. The storms begin to affect the territory in the west (Bizkaia), extending later to the East (Gipuzkoa) of the CAV. In Gipuzkoa showers are longer and more intense than those that occurred in Bizkaia.

The highest amount of rain is recorded in the east of the Gipuzkoa coast with accumulations greater than 30 mm in an hour; in the neighbourhood of Ereozu (Hernani) 47.5 mm in an hour are reached. The amount of rain during study day evening leaves a lot of incidents throughout the territory, particularly in Gipuzkoa, fortunately without personal injuries. In San Sebastian heavy showers affect the city around six in the afternoon, leaving large puddles throughout the city, especially in the centre and in the old town.

This type of event, in spite of its severity, is not atypical in the region and usually occurs recurrently once or twice during summer season, affecting different points of the territory. In the different radar products and other data analysed, the vertical development of the different convective cells, their displacement and the areas with high probability of hail can be appreciated.