



Using Citizen Science in Meteorological Hazard Events. The snow event in Catalonia 26-28/02/2018

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In the year 2008 the Meteorological Service of Catalonia (SMC) had created the Weather Observers Network (in Catalan, Xarxa d'Observadors Meteorològics, XOM) (Ripoll, et al. 2016), formed by a group of spotters distributed throughout the Catalan territory. Since 2016 this network is in the Citizen Science Office of Barcelona (BCNLab). The network is divided in two modalities: meteorological surveillance and meteorological observation. The meteorological surveillance allows providing information about the severe weather phenomena in real time through Internet or mobile phone. The spotters must act if they observe a phenomenon that significates a weather situation of danger (heavy rain, snow, wind, storm, sea state, hail, heavy hail, fog, freezing fog, freezing rain or tornado). They can also provide graphical information and pictures when they made the weather warning.

Last 26th to 28th of February 2018 a snowfall took place in Catalonia because a very cold air from European continent crashed with one Atlantic deep atmospheric depression. Monday 26th started with one first snowfall, Thursday 27th the cold air caused snowfall up to sea level, and Wednesday 28th it has the most important general snowfall since 2010. During these days 554 notifications were recorded in all the counties of Catalonia during these three days. It has been the weather situation of danger that has been recorded more notifications in the Citizen Science of the Meteorological Service of Catalonia.

Once the snowfall was finished, the data from Citizen Science was published in the Official Press Releases and was used to create snow depth maps and validate radar products.

This paper aims to evaluate the operation of Citizen Science (XOM) in snow-related weather conditions, and what advantages and inconvenience can have.