SINOBAS, a tool for collaborative mapping applied to observation of "singular" weather phenomena

Delia Gutiérrez Rubio (1), Jesús Riesco Martín (2), and Salvador Ponce Gutiérrez (3)

(1) AEMET, Sevilla, Spain (dgutierrezr@aemet.es), (2) AEMET, Málaga, Spain (jriescom@aemet.es), (3) AEMET, Málaga, Spain (sponceg@aemet.es)

SINOBAS stands for the Spanish words for "System for reporting singular atmospheric observations" and is also a tribute to one of the first scientifics involved in studying the atmosphere in Spain, D. Manuel Rico y Sinobas, who lived in the 19th century.

The system is aimed to facilitating citizens collaboration in reporting weather events that we have named as "singular", meaning local (not extended over a wide area), infrequent (not happening frequently), of significant intensity and with a potential to cause high social impact. The tool is a Volunteered Geographic Information (VGI) system, based on Google maps, where citizens help to building a data base of weather phenomena like tornadoes, water spouts, funnel clouds, gustnados, dust devils, downbursts, gust fronts, heat bursts, slope winds, severe hail, flash floods, heavy snowfall, snow avalanches, freezing rain and unusual maritime phenomena like local raisings of sea level. The system is of particular interest for amateur meteorologists, and is a good example of what is called "citizen science".

SINOBAS not only permits to consult the data and to incorporate new reports, but in parallel the system maintains a twitter account that provides a very promt communication channel with the public. This last tool is of particular interest for nowcasting, because it can provide our forecasters a very fresh and enthusiastic input about existing weather conditions, particularly when significant weather phenomena happen.