



Relationship of radar and hail parameters in the continental part of Croatia

Damir Pocakal

Meteorological and Hydrological Service of Croatia, Head of Analysis Section, Croatia (dhmz-rc@vz.t-com.hr)

Continental part Croatia is exposed, mainly in the summer months, to the frequent occurrence of severe thunderstorms and hail. In the 1960s, aiming to protect and reduce the damage, a operational hail suppression system was introduced in that area. The current protected area is 26800 km² and has about 580 hail suppression stations (rockets and ground generators) which are managed with 8 radar centres (S-band radars).

In order to obtain objective and precise hailstone measurement for different research studies, hailpads were installed on all this stations in 2001. Additionally the dense hailpad network (1 hailpad per 4 km²), was established in the area with the highest average number of days with hail in Croatia in 2002.

This paper presents analysis of relationship between radar measured parameters of hail bearing Cb cells and physical parameters of hail (diameter, number and kinetic energy) measured on polygon in period 2002-2013.