

A case study of severe hailstorm in Belgrade on 30th May 2013

Gordana Bogunovic

Republic Hydrometeorological Service of Serbia, Serbia

E-mail: gordana.bogunovic@hidmet.gov.rs

The aim of this study is to present an analysis of severe hailstorm which occurred around 10 UTC in Belgrade (capital city of Serbia) on 30th May 2013. An analysis is done using radar data obtained by dual polarized Doppler S-band radar (located on F.Gora mountain) and satellite images from EUMETSAT data archive. Also for the analysis of the atmospheric conditions we used the surface and upper level charts (charts were taken from www.wetter3.de/Archiv/) and upper sounding (which was downloaded from http://62.202.7.134/hpbo/sounding_create.aspx)

This hailstorm was only a part of severe convective development over Serbia that day. Convective development began at 8UTC in the territory of western Serbia. The supercell which affected Belgrade was long lived and it lasted about an hour and a half. It was moved in southwestern stream and was regenerated on its way. The other cell moved across Belgrade in the late afternoon, but it was much weaker.

Reflectivity up to 65dBZ is indicated a strong convection and hail presence. This storm caused heavy precipitation, strong winds and hail. Large hail and strong wind were caused many damages in the city. There was registered about 20 l/m² precipitation by Belgrade Meteorological Observatory.