

Analysis of some extreme icing events on the territory of Bulgaria

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Icing is a meteorological phenomenon, which is observed each winter in the mountainous regions and almost each year in the low part of the country and could be very severe, although the relatively south location of Bulgaria. 21 severe cases with serious damages to the power lines were registered in the last 50 years. They were caused by all type of icing – rime icing in the mountains, wet snow – mainly in the south and northwest parts and freezing rains in the northeast regions.

We have analyzed some of them in order to determine their main characteristics – duration and intensity of the process of icing and the values of the terminal ice depositions and ice loads.

We have used information from 20 meteorological stations as well as data records for the dimensions and the density of the ice depositions in cases of damages from the National Electric Company.

We have investigated also the synoptic situations during these cases and some typical configurations have been found.