



Climatological analysis of tornado events in Bulgaria during the period 2001-2014

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The present work is an attempt to summarize and analyze all documented cases of tornado or waterspouts in Bulgaria between 2001 and 2014. The 38 tornadoes and 17 waterspouts are reported during the investigated period. Most of the tornadoes in Bulgaria have been classified as F0-F1 of the Fujita scale. The given climatology of the occurrence of tornadoes and waterspouts consists of analysis of its spatial and temporal distribution. By space, tornadoes in Bulgaria tend to occur in the Southwestern, Southcentral and Northeastern parts of the country. The frequency of occurrence of tornadoes in Bulgaria appears to be about 0.35 per unit area of 10^4 km² per year. The highest frequency of occurrence of tornadoes in the country has been found in the administrative regions of Sofia-city and Razgrad. By time, tornadoes tend to occur in the warm half of the year, most often between May and July, and in the afternoon hours. The large-scale atmospheric patterns and the thermodynamic parameters and instability indices of the environment associated with the occurrence of tornadoes in Bulgaria have also been given.