

Hazardous atmospheric phenomena in climatology

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In 2006 almost after 50 years the Czech Hydrometeorological Institute publishes a new version of climatology of the Czech Republic - Climate atlas of Czechia, presenting the period 1961-2000. The authors of this contribution took part in this effort by studying an enormously difficult part of climate characteristics - hazardous atmospheric phenomena. We examined four phenomena that can have a negative impact on the environment, economic activities and living conditions: thunderstorms, hail, fog, and extreme precipitation while other phenomena that can also be hazardous - for example hoarfrost, black ice, glaze, windstorms, whirlwinds, and tornadoes were not included in the study. Basic characteristics as well as general overview of incidence rate and spatial variability are presented. It was difficult to analyse the phenomena globally since they are often local and of limited duration, have considerable dependence on the meteorological situation and orographic conditions. Data included in the atlas are not intended to facilitate various bodies and institutions (e.g. insurance companies) in making decisions. In such cases, expert advice should be requested from the appropriate department of the Czech Hydrometeorological Institute.