



Mean monthly visibility maps for Poland for spring-summer season

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Atmospheric aerosols play an important role in many atmospheric processes, providing the base for heterogeneous chemical reactions, modifying the radiation balance and acting as the condensation nuclei in the clouds formation. Taking into consideration the role of aerosols requires the spectral characteristics. In the absence of the dense network of ground measurements ones use the meteorological parameters to describe aerosols. Meteorological visual range (visibility) is such a parameter. In the paper, the method for creation the monthly mean visibility maps over Poland for spring-summer season is presented. A 10-year data series (1993-2003) of the visibility from 60 Polish synoptic stations was used. The data were processed in order to eliminate the situations, in which the visibility was obstructed due to meteorological phenomena (haze, rain, heavy clouds). The quality and homogeneity of the available data is also discussed. To find the best method for visibility interpolation, four different spatialisation algorithms were tested. The paper presents the applied approach as well as the obtained results.