



## **Changes of climatological conditions of automobile transport functioning in European part of Russia**

A.V. Borzenkova

Institute of Geography, Russian Academy of Science, Climatology, Russian Federation (alexandra\_borzenkova@mail.ru)

Automobile transport is very weather-sensitive branch of the economy. Some climatological characteristics which affect the automobile transport functioning were selected for analysis. The investigation results of their spatial distribution in European part of Russia (EPR) and changes for 60-years period (from 1950 to 2010) are reported. The studied parameters are: the snow amount; the number of weak, medium and extreme snowfalls; the average temperature of the coldest pentad (5 days in a row), the number of days with temperature below -25 C, dates of appearance and destruction of stable snow cover, number of crossings of the freezing point by the air temperature. Other parameters (range of visibility, blizzard frequency, parameters of road slipperiness) were investigated for Moscow and some other stations.

The largest changes are observed in the average temperature of the coldest pentad. The tendency of its increasing occurred on almost entire European part of Russia, as well as decreasing of number of days with temperature below -25 C. The tendency of the snow amount increase in (1981-2010) as compared with (1951-1980) has been detected in northern part of the investigated territory. The number of weak snowfalls decreased statistically significantly on the most part of EPR. The tendencies to earlier snow cover destruction in spring and decreasing of stable snow cover duration are observed. The number of crossings of the freezing point by the air temperature changed irregularly.