

Significant trends in some characteristics of atmospheric precipitation have been observed in central Europe in recent decades. Little attention has been paid to the investigation whether these trends are related to changes of precipitation falling from convective and stratiform cloudiness. This thesis deals with disaggregation of precipitation into convective and stratiform on the basis of the database of 10 SYNOP stations in the Czech Republic. The differentiated precipitation amounts were analyzed with respect to trends of total and heavy rainfall in individual seasons for the period 1982-2005.

For convective precipitation in the western part of the Czech Republic, the observed trend is increasing in total precipitation, except for spring, and declining in heavy rainfall, except for fall and winter. In the eastern part of the Czech Republic, the total amounts are increasing (except for winter) and heavy rainfall is decreasing, except for spring. For stratiform precipitation, the growing trend prevails in all the characteristics of the total and heavy rainfall throughout the Czech Republic. The exception is the spring season with the downward trend.