Abstract

Diploma thesis deals with influence of weather on traffic accidents on the roads in the Czech Republic in 2007–2009. After an introduction the reader is familiar with the origin of the acquired data and their processing methodology. An integral part of the search is a clear development of accidents on roads in the Czech Republic from 1993 to present. The following chapter is devoted to the topic of weather influence on road safety, prepared mainly from scientific foreign studies. It acquaints readers with the meteorological factors, the level of the weather influence and measures that increase road safety.

The main part deals with the influence of weather on road accidents in Czech Republic. Part of the chapter deals with the expression of the number ratio of accidents to traffic volume in the monthly and daily operation. The second part is an in-depth analysis focused on days 4 and more deadly traffic accidents that have become a key concern for the following subsections. Subsections deal with evaluating the status of the road surface and weather conditions, according to Police Czech Republic data and the relationship between meteorological elements (data source CHMI) and frequency of traffic accidents. The last part is the introduction of a new term "Accident Day" and a detailed analysis of its occurrence. The final chapter deals with measures to reduce accidents influenced by weather, consisting of timely forecasts and warnings on the occurrence nehodového day.

Key words: *weather influence – road meteorology – accident – road*