

ABSTRACT

AVALANCHES IN THE LABSKÝ DŮL VALLEY, KRKONOŠE MTS.

The main purpose of this paper is evaluation of causes of avalanches in the Labský důl Valley, Krkonoše Mts. Main types of avalanches, their frequency and meteorological conditions of their origin are analysed. The study demonstrates geomorphological and geocological influence of snow and avalanches on the landscape of the Labský důl Valley. The analysis of the snow distribution in the ridge part of the studied region indicates a strong influence of the anemo-orographic system of the Mumlava River Valley. The monitoring of the snow stratigraphy during the winter season 2004/05 shows its dynamic changes due to meteorological conditions during winter. Geomorphological parameters of avalanches originated in the Labský důl Valley are evaluated and compared with the whole mountain range. The six main types of avalanches, based on cluster analysis, are identified. Each cluster of avalanches is correlated with short-term meteorological conditions. The interpretation indicates a high variability within clusters as well as in the framework of the whole group of analysed avalanches. Individually described extreme avalanche situations display complicated conditions of their origin.