

Climate change in lower Austria – a snow cover analysis of the last 100 years with a special emphasis on the last century and the impact of the avalanche situation in Lower Austria

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In the winters 2005/06 and 2008/09 the snow height in Lower Austria was eminently high. In the last 10 years there were six winters with an eminently high snow cover, considering the one hundred year records. The analysis of the snow depth shows that the winter precipitation in the Alps of Lower Austria has increased by 10 % to 20 %. At the same time the summer precipitation has decreased by about the same amount. This means that we expect many winters with high snow depth in the next years or maybe centuries, despite the general rise of air temperature in Alpine regions. The increase of winter precipitation particularly affects the work of the emergency service. In the year 2006 the Avalanche Service Lower Austria was established.

In the last three years many avalanches on an unprecedented scale were registered. In the Lower Austrian Alps there were many situations in which gliding snow avalanches endangered streets. The consequence of these situations was that the avalanche commission and all members of the avalanche service were going through intensive education and avalanche trainings. This paper shows how the administration of Lower Austria professionally works against the impact of the climate change.