

## **The avalanche situation in a real winter. Review of the 09/10 season in Norway**

**Christian Jaedicke;** Kjetil Brattlien; Regula Frauenfelder; Krister Kristensen; Kalle Kronholm  
*NGI, Oslo, Norway*

The 2009/10 season featured significantly different snow conditions compared to the usually maritime snow pack in most of Norway. A stable high-pressure system over large parts of Europe led to low temperatures and limited precipitation in the country. Along the coast a continuous snow cover was observed for several weeks while the mountains received down to 20% of the 1971-2000 normal precipitation values. The snowpack had several weeks to develop extensive layers of depth hoar also in areas where this is usually not observed. The weather situation promoted the development of surface hoar in many locations as well, especially on the eastern side of the mountains. Still, the danger level was moderate most days of the winter. Similar conditions lead to the catastrophic avalanche winter in 1979. Based on that experience awareness was high and both road closures and evacuations were implemented in several occasions when heavy snowfalls were to load the weak base of the well established persistent weak layers. The observed avalanches were often hard slab avalanches of medium size occurring on slopes where avalanches are not observed in normal winters. The five registered fatalities during the past season were all back country skiing accidents and most of the avalanches were at least partly released in the week base of the depth hoar layers. The daily presence of avalanche observations caused intensive media coverage of the special snow situation. Journalists and the public soon adopted the international danger scale and communication between avalanche experts and the media improved significantly as a result of this season.