



Increasing old snow problem on shady slopes above approximately 2600 m

AVALANCHE DANGER

Potential avalanche danger currently makes caution essential above approximately 2600 m. This applies most of all to the regions along the Main Alpine Ridge. Especially affected are steep, W-NW to N to E-NE facing slopes, where the snowpack can occasionally be triggered even by minimum additional loading. The reason for this is the old-snow problem, generally containing several weak layers deeply embedded inside the snowpack. This problem is treacherous and highly difficult to recognize and evaluate, even for seasoned mountaineers. The scenario is most threatening in glacial terrain in the southern Ötztal and Stubai Alps, where several slab avalanches were triggered spontaneously last week, due to strong wind influence and snow transport. Apart from the old-snow problem, recently formed snowdrift accumulations in high alpine regions and in areas adjacent to ridgelines also require special caution.

SNOW LAYERING

Our snowpack analysis creates in a very clear picture: over widespread areas, beginning at approximately 2000 m upwards, a sequence of crusts and loosely-packed, faceted snow crystals are evident. To begin with, there are only a few shallow layers, and these are low in tensions. Above approximately 2600 m, however, the snow depths - particularly in the regions along the Main Alpine Ridge - increase significantly. As of that altitude, the potential old-snow problem begins. This is especially the case on W-NW to N to E-NE facing slopes. In the other aspects, early-stage faceting crystals can be observed at the crusts, but most of the layers on top of this faceting have been heavily impacted by winds - also by solar radiation on very steep, south-facing slopes - so that it is less likely that skiers will trigger avalanches there at the present time.

ALPINE WEATHER FORECAST (ZAMG-WEATHER SERVICE INNSBRUCK)

Weather situation from 7 December 2016: a high has spread over Central Europe. Above the inversion in the valleys, mild air masses are seeping through into Tirol. The high will probably be interrupted for a short time on Sunday night.

SHORT TERM DEVELOPMENT

The old-snow problem will persist for a bit, even if the tensions inside the snowpack are slowly diminishing, as a result of the high pressure weather front.

DANGER PATTERNS (DP)

[dp.1 - deep persistent weak layer](#)

[dp.6 - loose snow and wind](#)

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