

Behavior of snow glide observed on shrubby slope in early winter

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Snow glide observations were made on shrubby slope during the period from December 7, 2012 to January 16, 2013 at Ojiya, Niigata prefecture. Full-depth avalanche occurred twice on December 17 and January 16, and the glide velocity of not less than 300 mm/h was observed immediately before avalanche release in both cases. Thus, it is considered appropriate to adopt 100 mm/h of glide velocity as an alarm standard in Niigata prefecture in view of the factor of safety. Since the glide velocity was found to be very sensitive to variation in air temperature, it is necessary to solve the rapid decreasing process of resistance force at the interface between snow and ground. Finally, we applied the obtained data to the model of snow glide acceleration, proposed by Nohguchi (1989), to estimate the unknown parameters of the model. Consequently, the estimated values were comparatively close to Nohguchi's values.

Keywords: full-depth avalanche, snow glide