

Characteristics of the Yukishiro events and ground factor of slush avalanche on the eastern slope of Mount Fuji

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The ground condition as the mechanical factor and meteorological condition as the trigger of "Yukishiro (slush avalanche and slushflow in Mt. Fuji)" were well studied by Mr. Hirose in 1940s and subsequent works by researcher of snow/ice and mountain climber. However, according to case study based on long-term data, boundary of occurrence or non-occurrence of Yukishiro event, under the right conditions is not clear.

The author carried out field survey in the before and after of the day which were meteorological right condition in the eastern slope of Mt. Fuji. Following results were obtained,

- even if, there is enough snow accumulation, warm temperature and heavy rain with frozen ground (ice filled scoria and ash), non-occurrence of Yukishiro is common.
 - the occurrence tendency of slushflow from the bottom of small canyon and opened shallow valley is more frequent event rather than slush avalanche from the slope face.
 - ice layer(s) have been widely existed in snow. However it was not observed in February 2014 after heavy snow accumulation.
- According above mentioned feature, snow depth and existing the ice layer should be key condition of "Yukishiro".

Keywords: slush avalanche, slushflow, snow profile observation, ice layer, case study, disaster prediction