

## The Local Wind System on the Slope of Mt.Norikura

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In this study, a continuous observation has been conducted in the east slope of Mt.Norikura in Japanese Alps and the diurnal wind cycles has been examined based on observational analysis. As the result, the wind system where continuous observations and studies are insufficient was revealed.

Mt.Norikura is significantly affected by upper wind like mainly westerlies. However, when upper wind is relatively weak and the solar radiation and radiation cooling are sufficient, a diurnal wind cycle reflecting valley-wind (upward flow) in daytime and mountain-wind (downward flow) in nocturnal tends to develop. The typical mountain-valley winds dominants especially from summer to autumn. In addition to typical wind system, there are many days that wind direction is upward in the morning and changes downward in the afternoon. This wind system dominants especially in spring. In the Mt.Norikura from winter to spring, snow widely cover the ground. It is thought that snow surface play role to cool air in surface layer, therefore katabatic winds develop on the snow surface. In the winter, it is thought that the development of thermally circulation is suppressed due to strong upper wind, low solar radiation and high albedo, there are a few days that wind direction diurnally change.

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