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18-years blowing snow data set from a high-elevation alpine site (Col du Lac Blanc, France, 2720 m a.s.l)

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Observations of blowing snow and associated meteorological and snowpack parameters are crucial to understand the complex snowpack-atmosphere interactions during blowing snow events and to develop and evaluate numerical models in support of avalanche hazard. That's why, IRSTEA and Météo France have joined their efforts to investigate the effects of wind-induced snow transport on snowpack evolution. A high-elevation experimental site was set up at the Col du Lac Blanc, a north-south oriented pass located at 2720 m, in the French Alps. A unique meterological and blowing snow data set (doi:10.17178/CRYOBSCLIM.CLB.all) is now available for scientists and practionners. In-situ data consist of wind (speed and direction), snow depth, and air temperature measurements (recorded at four automatic weather stations), a database of blowing snow occurrence and measurements of blowing snow fluxes obtained from a vertical profile of Snow Particle Counters. Overview of meteorological data with a focus on blowing snow data over the last seasons will be detailed.