

B05-P05

APPLICATION OF MULTICOPTER FOR SNOW CONDITION MEASUREMENTS IN THE MOUNTAIN RANGE

Konosuke Sugiura (*University of Toyama, Japan*)

Naoya Wada (*University of Toyama, Japan*)

sugiura@sci.u-toyama.ac.jp

The utility of remote sensing approaches using a multicopter has been illustrated in recent years in the field of natural science. The purpose of this study is to extend the application of a simple, highly mobile, low-cost, battery-operated multicopter with digital camera and meteorological instruments for measurements of snow surface conditions pertaining to snow coverage, as well as to collect spatial data on the timing of accumulation and ablation processes of snow cover with vegetation.

Tateyama mountain range in the Japan Alps has existing glaciers and hilly area including the zone where the topography formed of the large-scale glacier existed in the last glacial period. Observations in such mountain area is usually carried out only at the spot of the observation tower higher than tree canopy, and it is difficult to observe in steep and wide area topography. As a test site to develop an observation network in the Arctic using multicopter, Tateyama mountain range was selected.