

Interannual and regional variations of GRENE Arctic observation sites by Satellite

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GRENE Arctic climate research project has started in 2011, and snow and ice condition has been monitored. This study observes snow and ice conditions at the GRENE Arctic field site and tries to analyze interannual variations and regional differences. The observation area is distributed in Alaska, Greenland, Siberia. This study extracted daily microwave data for ten years period from the observation sites and described snow conditions. As the snow condition affects many other researches through hydrological process and atmospheric boundary conditions, the seasonal cycle of snow condition is substantial for initiating project. Snow cover and melting periods are indicated and regional and interannual changes are summarized. Melting area and tendencies are investigated in Greenland ice sheet. This study overviews snow and related ground conditions at all major observation sites of GRENE Arctic project by using the satellite microwave data.

Keywords: Arctic, snow, satellite observation, GRENE Arctic project