

Satellite observation of cryospheric change using Arctic Data archive System (ADS)

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Arctic Data archive System (ADS) has been constructed in the GRENE Arctic Climate Research project. ADS is useful for quick look of data and visualizing satellite data in the Arctic. The decline of sea ice area in the Arctic influences on the environment and industrial activities in the coastal region and people's life. Satellite microwave data since 1978 was archived in ADS. They are SMMR, SSM/I, AMSR, AMSR-E and AMSR2. These data sets enable to analyze more than 35-years time series of snow conditions, sea ice conditions in the Arctic.

The data is available for all-weather, even during the polar night season. The data enables climatological analysis for more than 30-years time span. This study demonstrates ADS capabilities for long-time monitoring and snow and ice conditions.

Keywords: Arctic, Cryosphere, Satellite, Data archive