

# Towards Improved Characterization of Cloud and Precipitation Features in the Eastern Canadian Arctic Using a Research Aircraft

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Improved characterization of cloud and precipitation features are required to understand the impact of a changing climate in high latitude regions and accurately represent these features in models. However, data acquisition in high latitudes is challenging, where the frequency of observations from surface and research aircrafts is substantially lower in high latitudes, relative to mid-latitude regions, due to remoteness, harsh climates, variable surface environments, and high maintenance costs. Due to a lack of field observations historically, cloud and precipitation features associated with topographic interactions and the seasonal variation of heterogeneous surface