



Supplement of

Aircraft ice-nucleating particle and aerosol composition measurements in the western North American Arctic

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S1. Back trajectory analysis

This section contains a map for each sample collected in this study showing 5-day HYSPLIT back trajectories (upper panel) and altitude profile of each back trajectory (lower panel) from the midpoint of each sample location. For each sample, an ensemble of 20 trajectories has been run. The sampling location is marked using a star. The sea ice corresponds to 16th March 2018, extracted from the Multisensor Analyzed Sea Ice Extent - Northern Hemisphere (MASIE-NH) product at 1 km resolution (U.S. National Ice Center and National Snow and Ice Data Center. Compiled by F. Fetterer, 2010). The snow cover corresponds to the average snow cover % for March 2018, extracted from ECMWF ERA5-Land monthly average reanalysis data (Muñoz Sabater, 2021).



























































References

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Muñoz Sabater, J.: ERA5-Land monthly averaged data from 1981 to present, in, edited by: (CDS), C. C. C. S. C. S. C. D. S., 2021.

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U.S. National Ice Center and National Snow and Ice Data Center. Compiled by F. Fetterer, M. S., S. Helfrich, and P. Clemente-Colón: Multisensor Analyzed Sea Ice Extent - Northern Hemisphere (MASIE-NH) in, 1 ed., Boulder, Colorado USA. National Snow and Ice Data Center, 2010.