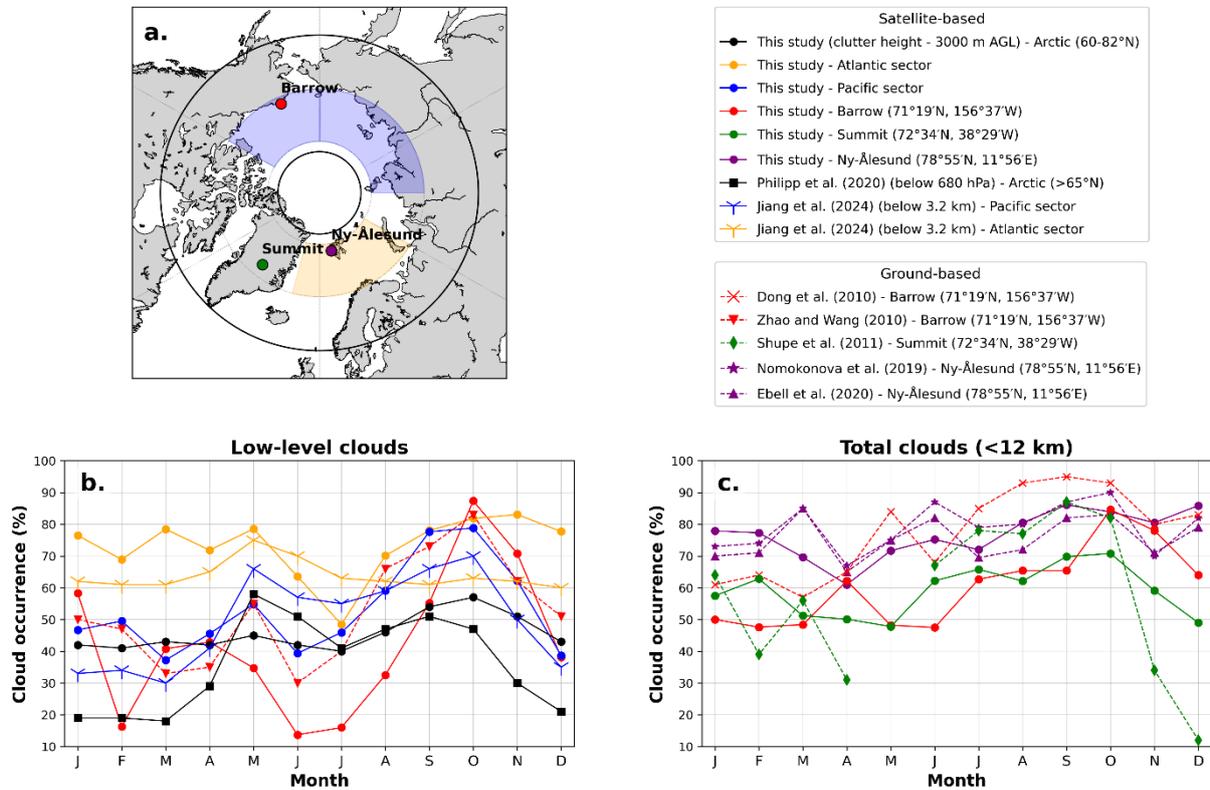


**Editor decision: Publish subject to minor revisions (review by editor)**

Thank you for this comment. We have revised Figure 10 to ensure that the colored lines now consistently correspond to the colors indicated in the legend. In addition, we have clarified the description of the locations and the content of the figure by improving both the labels within the figure and the figure caption to make them more precise.



**Figure 10. Monthly cloud occurrence in the Arctic derived from satellite observations and compared with previous satellite- and ground-based studies.** Panel (a) represents the map of the Arctic study domain used in this work. The black circle outlines the Arctic region between 60°N and 82°N, which defines the spatial domain considered in this study. The shaded sectors indicate the regions used for these comparisons: the Arctic Pacific (blue shading) and the Arctic Atlantic sector (orange shading). Colored dots indicate the locations of the ground-based sites: Barrow (red; 71°19'N, 156°37'W), Summit (green; 72°34'N, 38°29'W), and Ny-Ålesund (purple; 78°55'N, 11°56'E). Panel (b) represents the monthly occurrence of low-level clouds, while panel (c) represents the monthly occurrence of total clouds below 12 km. The line styles and symbols represent the different studies, as indicated in the legend, including satellite-based estimates (Philipp et al., 2020; Jiang et al., 2024) and ground-based observations (Dong et al., 2010; Zhao and Wang, 2010; Shupe et al., 2011; Nomokonova et al., 2019; Ebell et al., 2020).

We would like to sincerely thank the editor for the careful assessment of our revised manuscript and for the time taken to evaluate the evolution of the paper across both submissions. We are especially grateful for the thoughtful summary of the review process and for recognizing the substantial revisions that were carried out.

We also appreciate the editor's acknowledgement of the extensive work performed to reprocess the dataset, refine the methodology, and clarify the interpretation of the results. Your comments were very encouraging, and we are glad that the revisions addressed the main methodological concerns raised during the review process.

Finally, we would also like to join you in thanking the reviewers for their thorough and constructive evaluations, particularly the reviewer who kindly agreed to review both versions of the manuscript. Their detailed feedback was extremely valuable and helped us significantly improve the quality and clarity of the paper.

We have also added a note in the Acknowledgements section to thank the editor and the three reviewers for their time, effort, and constructive comments throughout the review process.