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Interactive comment

Interactive comment on "Impacts of the North Atlantic Oscillation on Winter Precipitations and Storm Track Variability in Southeast Canada and Northeast US" *by* Julien Chartrand and Francesco Salvatore Rocco Pausata

Anonymous Referee #2

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Chartrand and Pausata present a study into teleconnections between the North Atlantic Oscillation and wintertime precipitation and storm track variability across southeastern Canada and northeastern U.S. The authors utilize ERA5 and station observations to perform multiple tests including correlation and storm track analysis. They conclude 1) that positive (negative) NAO anomalies are associated with 1) reduced (increased) snowfall from the Mid-Atlantic U.S. to Nova Scotia CA, and 2) decreased (increased) coastal storm cyclogenesis in the vicinity of the U.S. East Coast, which is evidenced from a negative correlation between snow/precipitation ratio and the NAO index over

the aforementioned region.

While I think this study has potential, the manuscript needs to be better focused and streamlined before publishing. In particular, in its current form the manuscript reads more like a review than a research paper, and I am still left wondering what is new and what has been previously reported. Along these lines, I recommend shortening the introduction, keeping only what is absolutely necessary background (e.g., the first sentence cites five previous studies in supportive of the definition of the NAO – are all of these critical?), and making a more explicit statement of motivation. In the results section, report only the results, and move interpretations and comparisons against previous work to a discussion section.

Otherwise, this additional insight to into the NAO association with winter storm tracks and snowfall distribution across the study region is valuable and should be of interest to readers.

Interactive comment on Weather Clim. Dynam. Discuss., https://doi.org/10.5194/wcd-2020-20, 2020.