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## Winter jet stream wind speed changes in the eastern North Atlantic

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We have published [ <https://doi.org/10.1002/qj.4342> ] recent results on winter jet stream wind speed changes in the eastern North Atlantic: there is no change for the past 40 years but a statistically significant increase for the past roughly 20 years (2002-2020). The increase shows up in both the Global Aircraft Data Set (GADS) observations from flight data recorders and the ERA5 reanalysis. The wind speeds seem to track the North Atlantic Oscillation (NAO). We can consider four possibilities: ( 1 ) synoptic fluctuation; ( 2 ) improved aircraft routing, though inconsistent with NAO correlations; ( 3 ) greater number of automated aircraft observations; ( 4 ) actual secular change in the polar jet exit region of the atmosphere. This type of study must deal with subtleties of North Atlantic track system that includes aircraft step climbs. We will present newer results on the secular increase in automated aircraft observations and the effects of including more recent Northern Hemisphere winters (2021 through, possibly, 2023).