Interactive comment on “A global climatology of stratosphere-troposphere exchange using the ERA-interim dataset from 1979 to 2011” by B. Skerlak et al.

B. Skerlak
bojan.skerlak@env.ethz.ch

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Dear Klemens

I think the small net upward STE in the polar regions is not in conflict with a downward BDC since our tropopause (defined by 2pvu/380K, in polar regions around 300 hPa) lies quite a bit below the typical heights for the BDC (<100 hPa, please correct me if I am wrong). Furthermore, isentropes in the polar lowermost stratosphere (below 380K, above 2pvu) cross the dynamical tropopause further equatorward (typically in the extratropics) and thus quasi-isentropic STE of air masses brought down by the BDC will not give a signal directly at the pole.
Best regards Bojan

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