

Reply to Editor comment

I wanted to add a minor comment regarding the use of the polar cap averaged zonal winds to detect SSWs. I think the authors provide justification for using a different definition than what is standard/most common. However, using this other definition will change how rare the occurrence of 3 SSWs actually is. As a note, the Ineson et al. 2024 paper that is cited also uses the Charlton & Polvani 2007 definition, so those statistics are not comparable to the analysis done here. Also note that Butler et al. (2015) Fig 2 shows a large increase (about 25%) in detected SSW events when using the polar-cap averaged definition. Therefore, please be careful when making statements such as "three major SSWs are identified - an extremely rare occurrence in a single winter." If you change your definition, the statistics change too, and 3 SSWs is likely not so rare when using this definition.

Dear Editor, thank you for your comment. We agree, the occurrence rate of SSWs depends on the definition used. We, therefore, made clarifications in the text when mentioning the number of SSWs in winter 2023/24.