Weather Clim. Dynam. Discuss., author comment AC1
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Reply on CC1

Tim Woollings et al.

Author comment on "The role of Rossby waves in polar weather and climate" by Tim Woollings et al., Weather Clim. Dynam. Discuss., https://doi.org/10.5194/wcd-2022-43-AC1, 2022

Thanks for your comment. This discussion is not limited to stationary waves, hence the potential for upstream propagation as you say. Upstream phase propagation in transient waves is clear in many of the diagnostics, eg Fig 1. Much of the paper is focused on transient waves, though without excluding stationary waves.

We do discuss some stationary wave theory later in section 2.5, with $\omega=0$, and we could make that distinction clearer. In section 2.5 we also briefly discuss how the stationary wave results are modified when the assumption of stationarity is relaxed, following Yang and Hoskins (1996).

Thanks again for your interest.