

Response to Reviewer 1:

We thank you for your time taken to thoroughly review our revised manuscript. We have now corrected the caption for Figure 5 as suggested.

Response to Reviewer 2:

We thank you for your time taken to thoroughly review our revised manuscript. We have addressed your comments as follows in order to further improve the manuscript:

Minor Comment 1: *L393: I wouldn't call a weather front an "eddy" (Wills et al. 2024 and Scaife et al. 2026 investigate atmospheric model resolution, which I would suspect to be more important for the vertical propagation of a heating anomaly in the SPG region) and "mesoscale eddies" usually refers to ocean eddies. Suggest rephrasing to "mesoscale weather phenomena and SST patterns/ocean eddies", "mesoscale processes" or similar.*

We have implemented your first suggestion: to replace 'mesoscale eddies' with 'mesoscale weather phenomena and ocean eddies'. We thank you for this suggestion.

Minor Comment 2: *L401: I don't understand what additional information you aim to convey with the second of these two sentences, please clarify: "...but Polkova et al. (2023) found that decadal hindcasts using full-field initialisation [...] had higher prediction skill for SPG SSTs. However, they also found that full-field initialised systems with the smallest biases had the highest skill."*

We have removed this second sentence, as we agree that it does not provide additional information beyond that provided in the first.

Technical corrections: We have implemented these corrections as suggested. Thank you for pointing these out.