

Weather Clim. Dynam. Discuss., referee comment RC1
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Comment on wcd-2021-29

Anonymous Referee #1

Referee comment on "Intraseasonal variability of ocean surface wind-waves in the western South Atlantic: the role of cyclones and the Pacific South-American pattern" by Dalton Kei Sasaki et al., Weather Clim. Dynam. Discuss., <https://doi.org/10.5194/wcd-2021-29-RC1>, 2021

The authors examine the relationship between extratropical cyclones, South Pacific - Atlantic intraseasonal variability and extreme significant wave height (swh) values in the western South Atlantic (wSA). Specifically, the authors analyze storm track modulation due to westerlies winds and in particular the intraseasonal component of the Pacific South-American (PSA) mode. Empirical orthogonal function (EOF) analysis of the 10m zonal wind and swh were made using ERA5 reanalysis data in order to assess the westerlies and waves regime in the wSA.

The authors found that (1) the intraseasonal signal over the wSA does indeed have a strong role in determining the magnitude of the wave field and that the internal variability of the westerly jets provide the requisite local forcing. The subsequent finding that this intraseasonal variability is in fact linked to the PSA modes is well supported.

I found this paper generally well written with a solid analysis and a plausible framework.

I would recommend that the authors revise the manuscript to remove the many minor typographical errors and to improve the grammatical errors.