CORRECTION



Correction to: Global ocean heat content redistribution during the 1998–2012 Interdecadal Pacific Oscillation negative phase

Guillaume Gastineau 10 · Andrew R. Friedman 1,20 · Myriam Khodri 1 · Jérôme Vialard 1

Published online: 16 July 2020

© Springer-Verlag GmbH Germany, part of Springer Nature 2020

Correction to: Climate Dynamics (2019) 53:1187-1208 https://doi.org/10.1007/s00382-018-4387-9

The wind stress was erroneously post-processed from the ERA-Interim forecast in our study. The daily wind stress field was calculated from accumulated stress every 6 h with the forecast starting at the reference time 12h of the day before. We mistakenly averaged the accumulated stress over the lead times 18 h, 24 h, 30 h and 36 h instead of taking the accumulated quantity at 36 h minus that at 12 h. This results in our study overestimating wind stress anomalies by a factor of about 19%, though the spatial pattern of the anomalies is identical. Over the Niño 4 region, this results in a 1992–2012 zonal wind stress trend of $-1.65 \cdot 10^{-2}$ Pa dec⁻¹

in our study, instead of -1.39 Pa dec⁻¹ in the original ERA-interim dataset (Fig. 1). This is consistent with the overall overestimated Niño 3.4 SST interannual variability in our wind-stress-forced simulations (Fig. 1e in the original study).

We, therefore, speculate that the ocean heat uptake associated with the wind stress forcing is also overestimated in the sensitivity experiment presented. The ocean processes found in our study should still apply when using corrected wind stress; however, the exact quantities reported from our experiments should be interpreted with caution.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

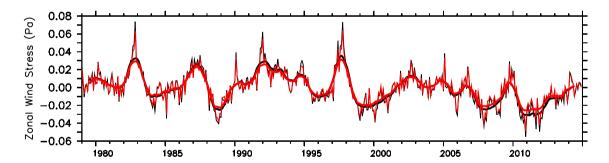


Fig. 1 Monthly Niño 4 zonal wind stress anomalies, in Pa. The black line indicates the zonal wind stress anomaly applied in the W-FULL experiment, in this study. The red line indicates the wind stress from

ERA-Interim. Thin lines are monthly means, while thick lines show the 12-month running means

The original article can be found online at https://doi.org/10.1007/s00382-018-4387-9.

- ☐ Guillaume Gastineau guillaume.gastineau@upmc.fr
- Sorbonne-Université, LOCEAN, CNRS/IRD/UPMC/ MNHN, Paris, France
- Present Address: School of Geosciences, University of Edinburgh, Edinburgh, UK

