

Dear Editor-

We have amended the manuscript in accordance with the wishes of the reviewer. Please find our specific comments below (reviewer's comments are in blue):

*(Note from editor)* “the tidal forcing is not necessarily the time and place where tidal dissipation takes place. This certainly adds a complication to the interpretation, and I think it would be beneficial to include this point in the discussion.”

We have now added this text to the discussion (lines 283-285 of revised manuscript): *An important point to note with regard to parameterisation of the nodal cycle is that tidal forcing is not necessarily at the same time and place where tidal dissipation takes place, implying a limit to the spatial resolution that a parameterisation might employ.*

Minor comment:

Line 114: I'm not sure why the SST cold anomaly might be expected to peak halfway through the nodal cycle. Can you explain? I would expect the SST to respond more or less in phase with the cycle (with maybe a ~1 year lag due to reemergence-like behaviour). The surface layer is well mixed, so why should SST act differently to the top 100-150 m (line 113)?

We have changed the text to clarify this (lines 117-120 of revised manuscript): *In the absence of any feedback from the atmosphere, the global mean sea surface temperature cold anomaly might be expected to peak at the same time as the subsurface warm anomaly, which is half-way through the nodal cycle in years 9-10. This is when the tidally driven diffusion changes from its enhanced phase to a reduced phase.*

Typos:

Line 41: “coupled ocean-atmosphere” needs to become “coupled atmosphere-ocean” to match the acronym “AOGCM”.

Line 71: “temporarily” > “temporally”

Line 131: I think “the maximum heat flux” is meant to be “the maximum heat content” on this line.

Line 193: “North east” > “North East”

Line 213: Missing “overturning” from “Atlantic meridional overturning circulation”

Line 250: Missing “over” from “warming of 0.03-0.06 K over the period”

We have made all these changes

Check throughout:

“et al” is an abbreviation, so should be “et al.”

There are several instances of “Tsurf” where the “surf” is not subscript.

We have corrected all instances of this

Figures:

The figures are very low resolution. I cannot read most of the text in Figure 2. The rest are readable, but blurry. Please check the final figure quality carefully.

We have remade the paper figures using PDFs to be less blurry