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Dear Reviewer # 2:

Thank you very much for the references in your comments on the manuscript entitled "*The basic mechanism behind the hurricane-free warm tropical ocean*" (acp-2009-742).

We have overlooked one of very important studies focusing on the small but not neglectable effect of $\cos\varphi$ Coriolis terms on the global models done by White and Bromley (1995). **Since** building completely-accurate global models is the destination of atmospheric science**, we** are desperate for spelling out the "global model outputs" in the sentence listing the results of a large number of studies focusing on the effect of $\cos\varphi$ Coriolis terms. The corresponding revised sentence should be:

"*A large number of studies (e.g., Garwood et al., 1985; Leibovich and Lele, 1985; Draghici, 1987; Mason and Thomson, 1987; Draghici, 1989; Shutts, 1989; Burger and Riphagen, 1990; White and Bromley, 1995) have emphasized the non-neglectable effect of* $\cos\varphi$ *Coriolis terms on the outputs of global models, the synoptic-scale systems in the tropics, the turbulent kinetic-energy budget in the oceanic surface mixed layer, Ekman layer stability, boundary layer eddies and nonhydrostatic mesoscale atmospheric systems etc.*."

For a more precise discussion on term 1 in Eq. (1), we would like to replace the confusing sentence:

"*In a completely-resting atmosphere on the rotating Earth with* $\Omega > 0$ *and* $N = 0$*, so long as the zonal wind is not zero at the Equator with* $\cos\varphi = 1$*, the magnitude of this term i.e.,* $2\Omega u$ *could be at least as large as that of midlatitude* $\sin\varphi$ *Coriolis term i.e.,* $2\Omega u \sin 45^o = \sqrt{2}\Omega u$ *receiving most attention due to its significant role in the horizontal momentum equation*"

by the following sentence:

"*Starting with a completely-resting atmosphere on the rotating Earth with* $\Omega > 0$ *and* $N = 0$*, so long as external forces generate equatorial (*$\cos 0^o = 1$*) zonal wind,* $2\Omega u$ *could be as large as the midlatitude* $\sin\varphi$ *Coriolis term i.e.,* $2\Omega u \sin 45^o = \sqrt{2}\Omega u$ *receiving most attention due to its significant role in the horizontal momentum equation*".

Sincerely,

Zhuojian Yuan

Professor

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