

**correction to lines 1-8 on page 3868**

We calculated vertically integrated moisture transport over the Central American isthmus across the line segments 1-4 (noted in Fig. 3a) and between the surface and 700 hPa pressure level following Xu et al. (2005) and Richter and Xie (2010) using monthly averaged model output:

$$Q_{CLLJ} = \frac{1}{g} \int_{p_{700}}^{p_s} \int_{l_1}^{l_4} u_{ist} q_{ist} dp dl \quad (3)$$

in which  $Q_{CLLJ}$  is the low-level moisture transport across the line segments,  $g$  is the acceleration due to gravity,  $p_s$  and  $p_{700}$  are the surface pressure and the pressure at the top of the 700 hPa pressure level,  $l_1$  and  $l_4$  are the line segments 1 and 4,  $u_{ist}$  is the flow velocity normal to each line segment,  $q_{ist}$  is the specific humidity,  $p$  denotes the atmospheric pressure and  $l$  denotes the distance along the line segment. The moisture transport calculation is limited to the lower atmosphere in order to single out the response of the CLLJ. Using monthly averaged model output instead of daily output to compute cross-isthmus moisture transport only marginally affects results (Richter and Xie, 2010).