Supplementary Material

**Figure S1:** Left: Time-longitude (Hovmoeller) diagram of the zonal friction drag anomaly between 15 December 2015 and 15 January 2016 and averaged over latitudes between 60°S and 60°N. Right: Reproduction of the integrated friction torque arising from the Eastern Pacific zone as shown by the red, dashed line in the bottom panel of Fig. 4.