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Supporting Information for

[Revisiting the Seasonal Cycle of the Timor Throughflow: Impacts of Winds, Waves and Eddies]

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Introduction

Figures S1 and S2 compare velocities in Timor passage between observations and the 1 km resolution regional model forced by output from the COSIMA repeat year global model run.

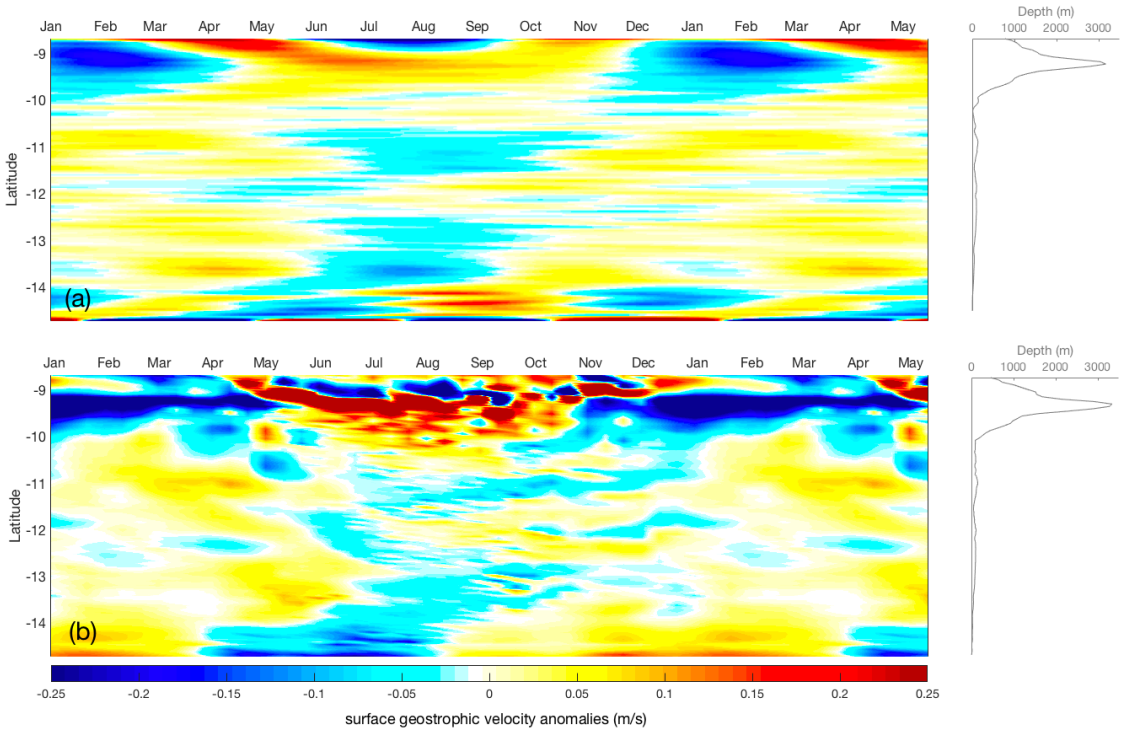

Figure S1. Comparison between the seasonal cycle of the surface geostrophic velocity anomalies across Timor passage in model (1 km) and observations. (a) Seasonal fit to the satellite record for track 012. (b) Surface geostrophic velocity anomalies from the model derived from the model pressure field, interpolated into the altimeter track and rotated to the direction normal to the track. Positive indicates anomalies directed to the southwest (enhanced flow in the ITF sense). For context, panels on the right show the depth profile across Timor passage.

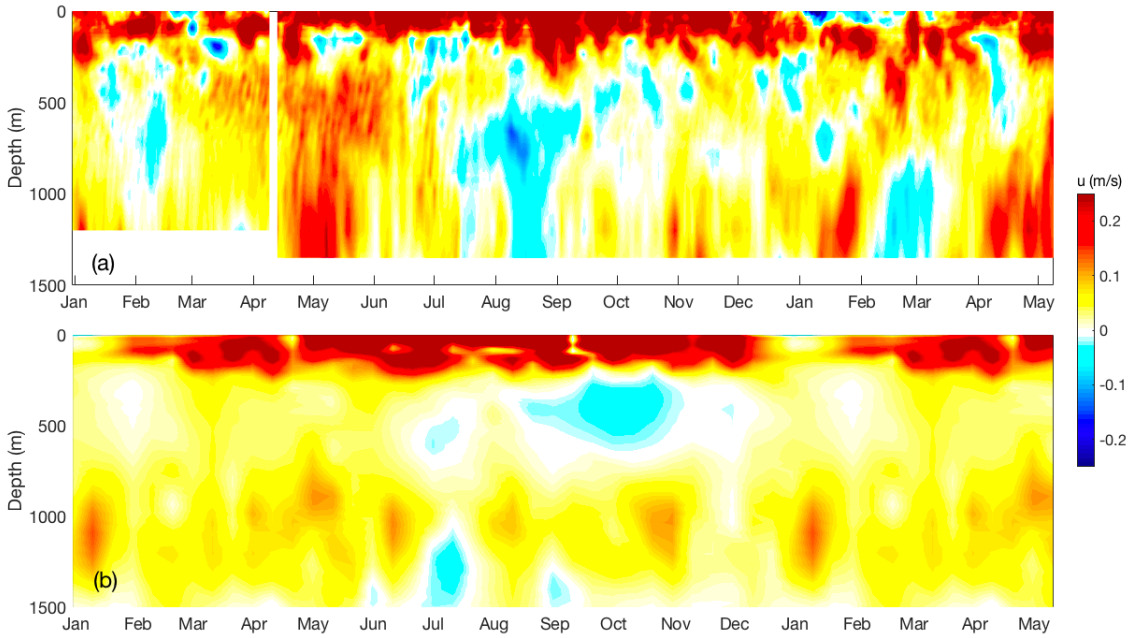

Figure S2. Comparison between the vertical structure of the model velocities and observations at the Timor Sill site. (a) An extract of the raw downstream velocity (normal to the mooring line) from the Tsill mooring. (b) Model velocities at the Tsill site rotated to the downstream direction, for an equivalent period of time. Velocities are shown in m/s and positive indicates to the southwest. The mooring record contains both intraseasonal and interannual variability and tends to show slightly larger magnitude at all depths.