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Supporting Information for

Simulated responses of the West African monsoon and zonal-mean tropical precipitation to early Holocene orbital forcing

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Introduction

Here we provide several additional figures for reference.

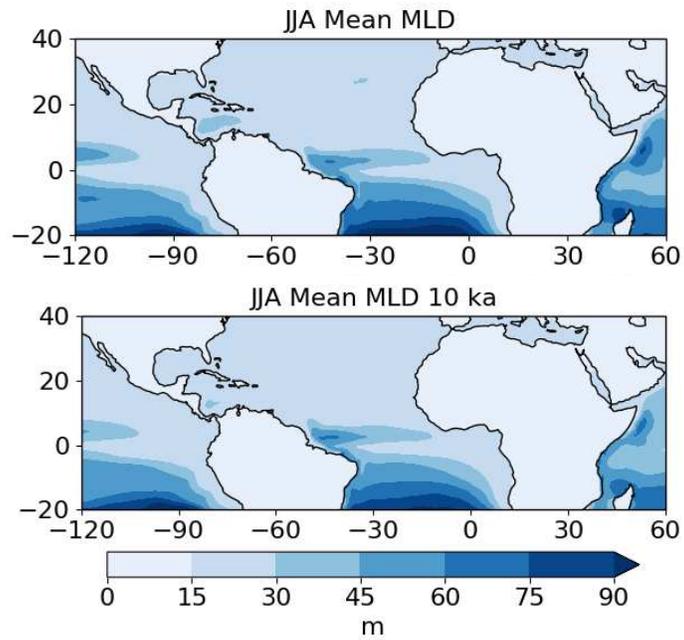


Figure S1. JJA mean mixed layer depth (MLD) in meters in the GFDL CM2.1 coupled model simulation. MLD is 15-30 meters over most of the North Atlantic ITCZ sector in both the control (upper panel) and 10 ka (lower panel) simulations.

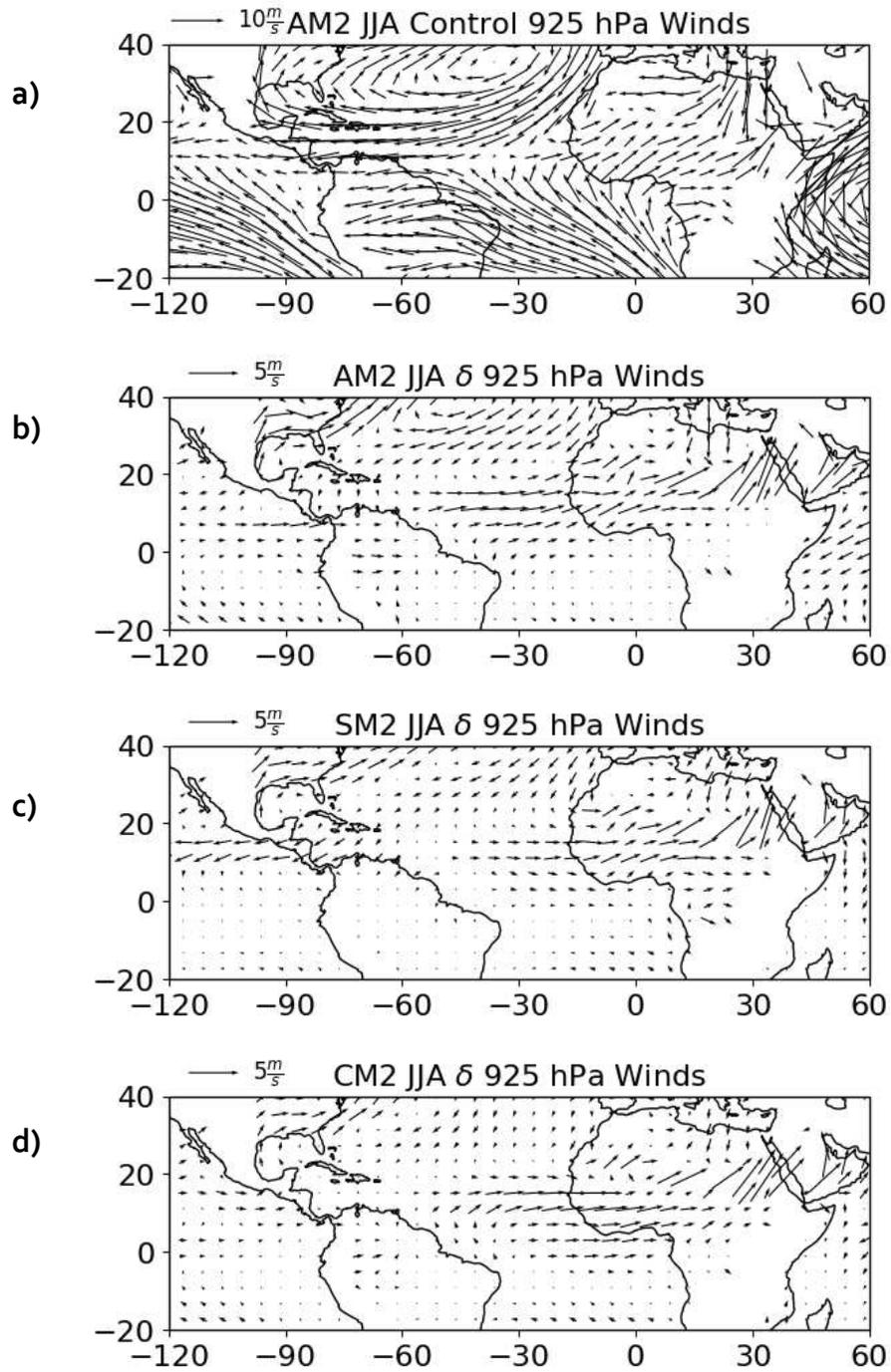


Figure S2. JJA mean near-surface (925 hPa) winds in the fixed SST control simulation (a) as well as the anomalies in the fixed SST (b), slab ocean (c), and coupled model (d) experiments.

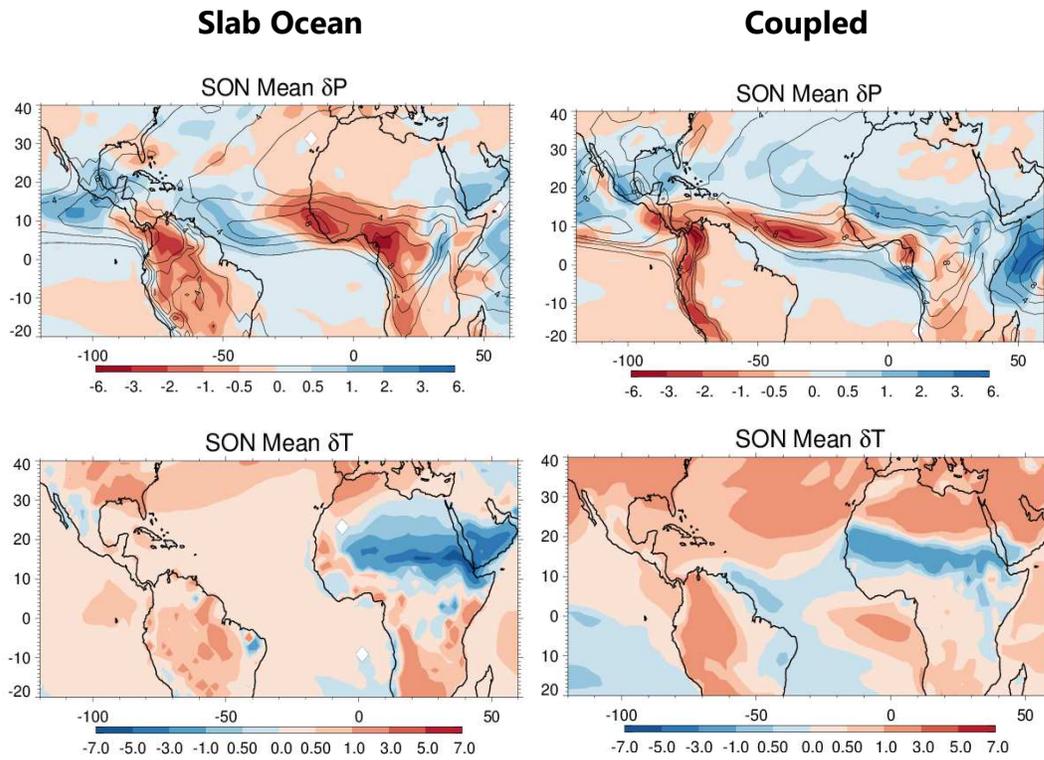


Figure S3. September to November (SON) mean precipitation (upper) and temperature (lower) anomalies in the slab ocean (left panel) and coupled model (right panel) experiments. The slab ocean exhibits a phase lag of SSTs, wherein the SST warming lags the season with the largest positive insolation anomaly (JJA). This simple response does not characterize the simulation with ocean dynamics.

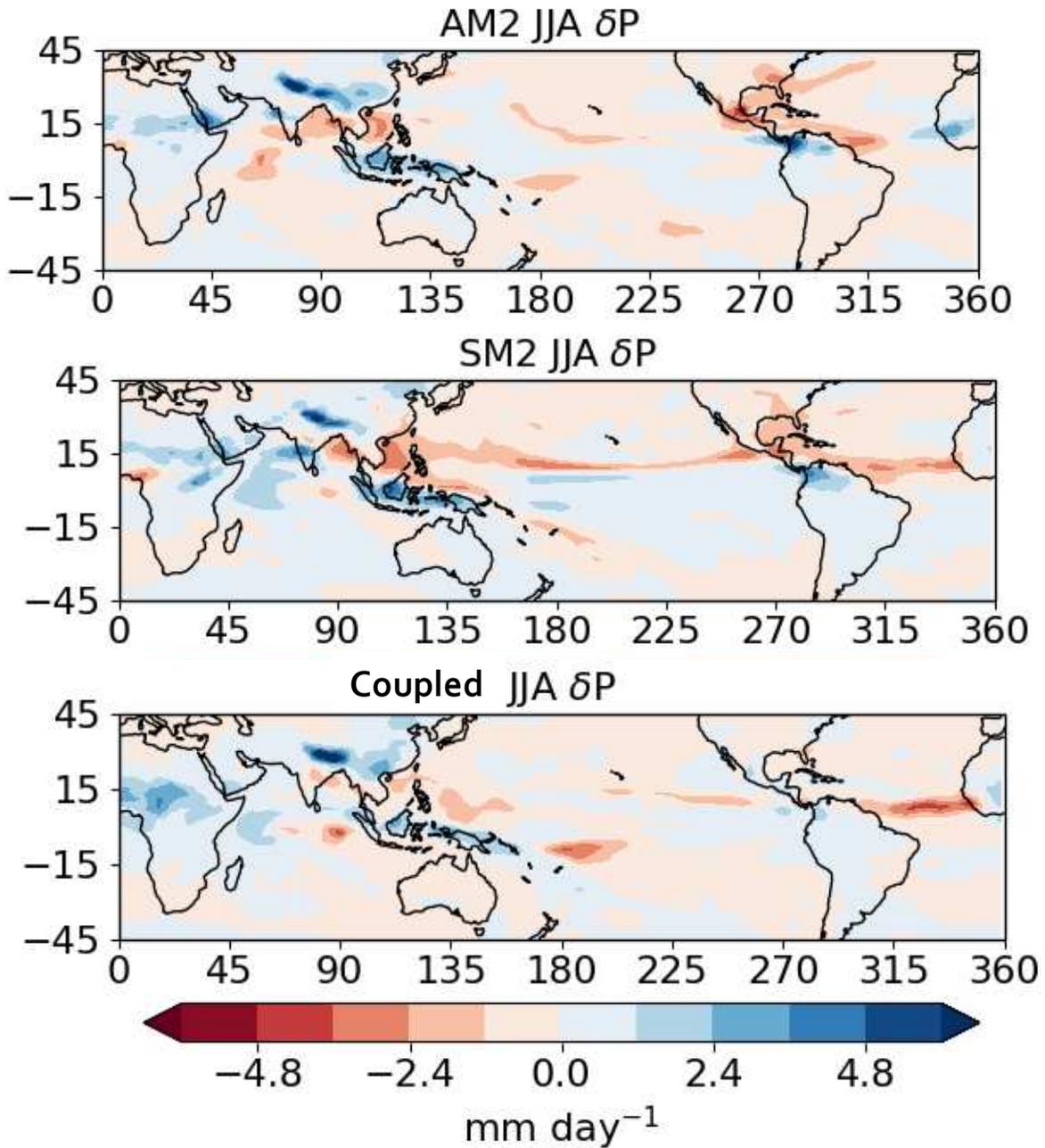


Figure S4. June to August (JJA) mean precipitation response (10 ka-control) across all longitudes in the fixed SST (upper), slab ocean (center) and coupled model (lower) experiments. The southward zonal mean ITCZ response is dominated by the changes over the Pacific and Atlantic basins. The experiments do not exhibit consistent precipitation responses over South Asia.