Supplementary Information

Embedding a One-column Ocean Model (SIT 1.06) in the Community Atmosphere Model 5.3 (CAM5.3; CAM5–SIT v1.0) to Improve Madden–Julian Oscillation Simulation in Boreal Winter
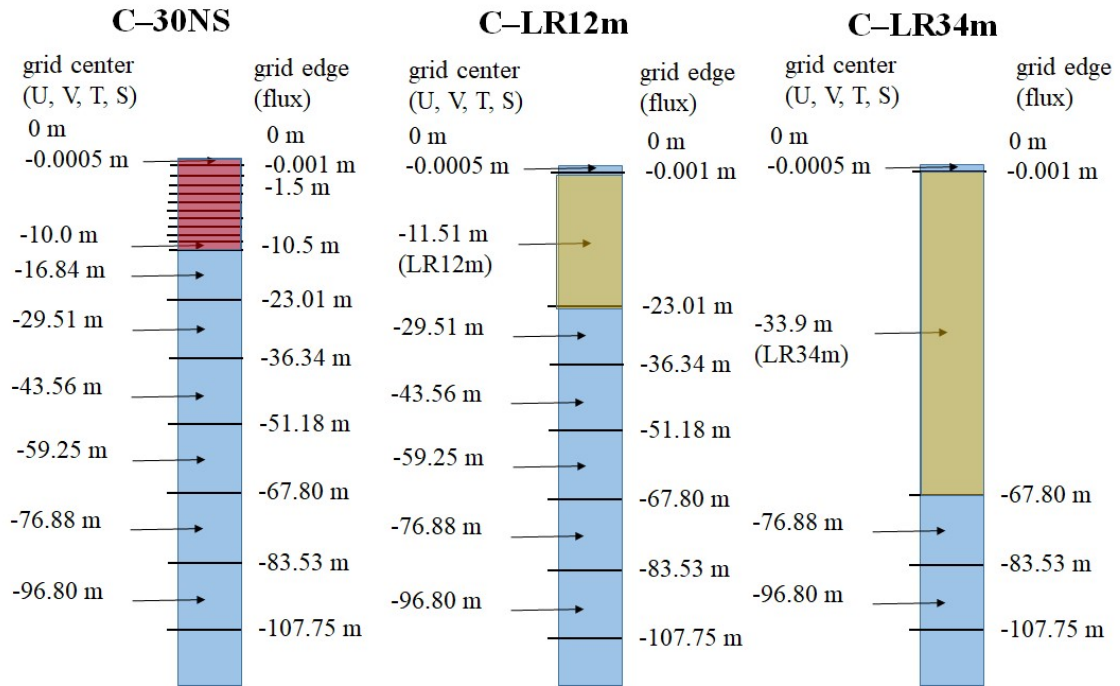
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15   Figure S1. Diagram showing the vertical grid within 107.8 m in C–30NS, C–LR12m and
16   C–LR34m, the model is as thick as 107.8 meters and with several layers between surface
17   and model bottom. C–LR12m (31 vertical layers) and C–LR34m (28 vertical layers) have
18   a first layer with grid center of 12 m and 34 m, respectively, but have the same vertical
19   discretization as in the control experiment (C–30NS, 41 vertical layers) below the first
20   layer.

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23   Figure S2. Diagrams showing the vertical grids in C–HR1mB10m, C–HR1mB30m and

24   C–HR1mB60m. The model bottoms are 10, 30, and 60 m, respectively, unless the seabed

25   is shallower than the above depth.