

Figure S1: Simulated 2014-2015 boundary layer-average (average over bottom 1 km) total gas- and aerosol-phase nitrate (top panel), and fraction of total that is in the gas-phase (bottom left panel), in coarse-mode SSA (bottom middle panel), and in accumulation-mode aerosol (bottom right panel) for the updated model.

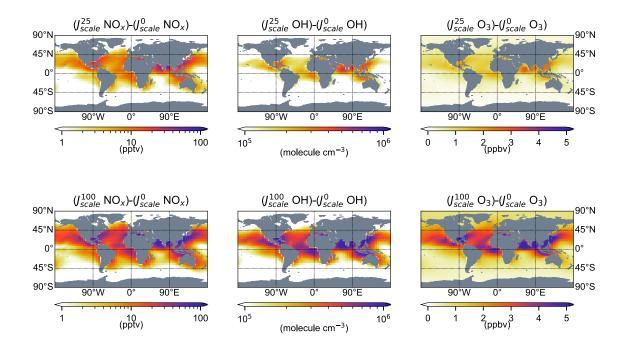


Figure S2: Simulated increases in 2014-2015 MBL-average (average over bottom 1 km) NO<sub>x</sub> (left panels), OH (middle panels) and O<sub>3</sub> (right panels) for the  $J_{scale}^{25}$  (top panels) and  $J_{scale}^{100}$  (bottom panels) model runs relative to the  $J_{scale}^{0}$  model run.