### 3rd Model Layer Summary: SO2-at-height (absolute difference) surface flux of BC - global surface flux of SO2 - global 1.2e-19 2e-13 6.1e-20 $\Delta \ \mathrm{emiso2} \ (\mathrm{kg} \ \mathrm{m}^{-2} \ \mathrm{s}^{-1})$ $\Delta$ emibc (kg $\mathrm{m}^{-2}~\mathrm{s}^{-1})$ 0.0e+000e+00 -6.1e-20 -2e-13 -1.2e-19 50 100 150 200 50 100 150 200 Third Layer (m) Third Layer (m) surface concentration of BC - global surface concentration of SO4 - global 2e-12 2e-10 $\Delta$ mmrso4 (kg kg – 1) 1e-12 1e-10 $\Delta$ mmrbc (kg kg – 1) 0e+00 0e+00 -1e-12 -1e-10 -2e-10 -2e-12 -50 100 150 200 50 100 150 200 Third Layer (m) Third Layer (m) surface concentration of SO2 - global surface concentration of DMS - global 1e-12 5e-10 5e-13 $\Delta$ dms (kg kg – 1) $\Delta$ so2 (kg kg -1) 0e+00 0e+00 -5e-13 -5e-10 -1e-12 150 100 50 100 200 50 150 200

Third Layer (m)

UKESM

Third Layer (m)

CESM2

E3SM

GEOS

GFDL

GISS

OsloCTM3

▲ CAM5

CESM1







