1st 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 $\Delta \ \mathrm{emiso2} \ (\mathrm{kg} \ \mathrm{m}^{-2} \ \mathrm{s}^{-1})$ Δ emibc (kg $\mathrm{m}^{-2}~\mathrm{s}^{-1})$ 0.0e+000e+00 -6.1e-20 -2e-13 -1.2e-19 50 100 150 50 100 150 First Layer (m) First Layer (m) surface concentration of BC - global surface concentration of SO4 - global 2e-12 · 2e-10 Δ mmrso4 (kg kg – 1) 1e-12 1e-10 Δ mmrbc (kg kg – 1) 0e+00 0e+00 -1e-12 -1e-10 -2e-10 -2e-12 -50 100 150 50 100 150 First Layer (m) First Layer (m) surface concentration of SO2 - global surface concentration of DMS - global 1e-12 5e-10 5e-13 Δ dms (kg kg – 1) Δ so2 (kg kg –1) 0e+00 0e+00 -5e-13 -5e-10 -1e-12

50

UKESM

100

First Layer (m)

150

50

100

First Layer (m)

▲ CAM5

CESM1

150

GEOS

GFDL

GISS

OsloCTM3

CESM2

E3SM







