Summary - percent difference surface flux of BC - SH-sea surface flux of SO2 - SH-sea 0.3% 0.2% 4% 0.1% Δ emibc ∆ emiso2 0% 0% -0.1%-4% -0.2%-0.3% surface concentration of BC - SH-sea surface concentration of SO4 - SH-sea 15% 10% 5% 5% ∆ mmrbc ∆ mmrso4 0% 0% -5% -5% -10% -15% surface concentration of SO2 - SH-sea surface concentration of DMS - SH-sea 100% 0.5% 50% $\Delta \, \mathsf{dms}$ $\Delta \, \text{so2}$ 0% -50% -0.5%-100%



Summary - percent difference column mass burden of SO4 - SH-sea column mass burden of SO2 - SH-sea 20% 10% 10% 5% ∆ loadso4 ∆ loadso2 0% 0% -5% -10% -10% -20% column mass burden of BC - SH-sea SO4 lifetime - SH-sea 20% △ loadso4/(dryso4 + wetso4) 0% 20% Δ loadbc -20% 0% -40% -20% -60% bc ho seas ro sol SO2 timescale - SH-sea 1e+05% ∆ loadso2/emiso2 50000% 0% -50000% -1e+05% 70 50A ridh soa

▲ CAM5

CESM1

• CESM2

E3SM

GEOS

• GFDL

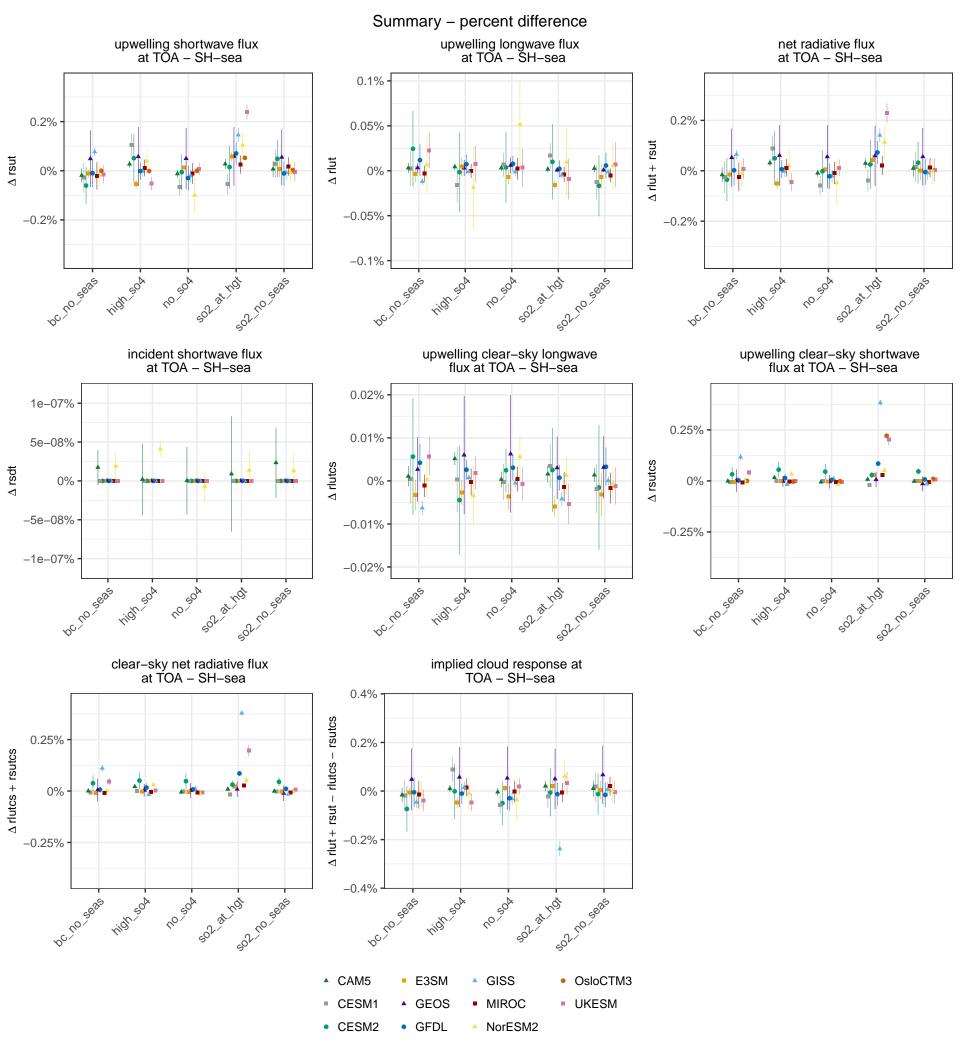
GISS

MIROC

NorESM2

OsloCTM3

UKESM



Summary - percent difference ambient aerosol optical total cloud cover - SH-sea thickness at 550nm - SH-sea 0.3% 0.2% 50% 0.1% Δ od550aer $\Delta \, \text{clt}$ 0% 0% -0.1%-50% -0.2% -0.3% convective cloud cover - SH-sea surface cloud cover - SH-sea 0.2% 1% 0.5% 0.1% Δ cltc ∆ cl 0% 0% -0.1% -0.5%-0.2% -1% sol a no ice water path - SH-sea 1% 0.5% ∆ clivi 0% -0.5%-1% 10 50A OsloCTM3 ▲ CAM5 E3SM GISS

CESM1

• CESM2

GEOS

• GFDL

MIROC

NorESM2

UKESM

