Summary - percent difference surface flux of SO2 - NH-atlantic surface flux of BC - NH-atlantic 10% 0.2% 5% Δ emibc ∆ emiso2 0% 0% -5% -0.2%-10% surface concentration of BC - NH-atlantic surface concentration of SO4 - NH-atlantic 15% 20% 10% 10% 5% ∆ mmrbc ∆ mmrso4 0% 0% -5% -10% -10%-20% -15% surface concentration of SO2 - NH-atlantic surface concentration of DMS - NH-atlantic 3% 100% 2% 50% 1% $\Delta \, \mathsf{dms}$ $\Delta so2$ 0% 0% -1% -50% -2% -100% -3%

▲ CAM5

CESM1

• CESM2

E3SM

GEOS

GFDL

GISS

MIROC

NorESM2

OsloCTM3

UKESM

Summary - percent difference column mass burden of SO4 - NH-atlantic column mass burden of SO2 - NH-atlantic 20% 20% ∆ loadso4 ∆ loadso2 0% 0% -20% -20% column mass burden of BC - NH-atlantic SO4 lifetime - NH-atlantic 20% 100% $\Delta \log 4/(dryso4 + wetso4)$ 10% 50% Δ loadbc 0% 0% -10% -50% -20% SO2 timescale - NH-atlantic 2e+08% ∆ loadso2/emiso2 1e+08% 0% -1e+08% -2e+08%

▲ CAM5

CESM1

• CESM2

E3SM

GEOS

• GFDL

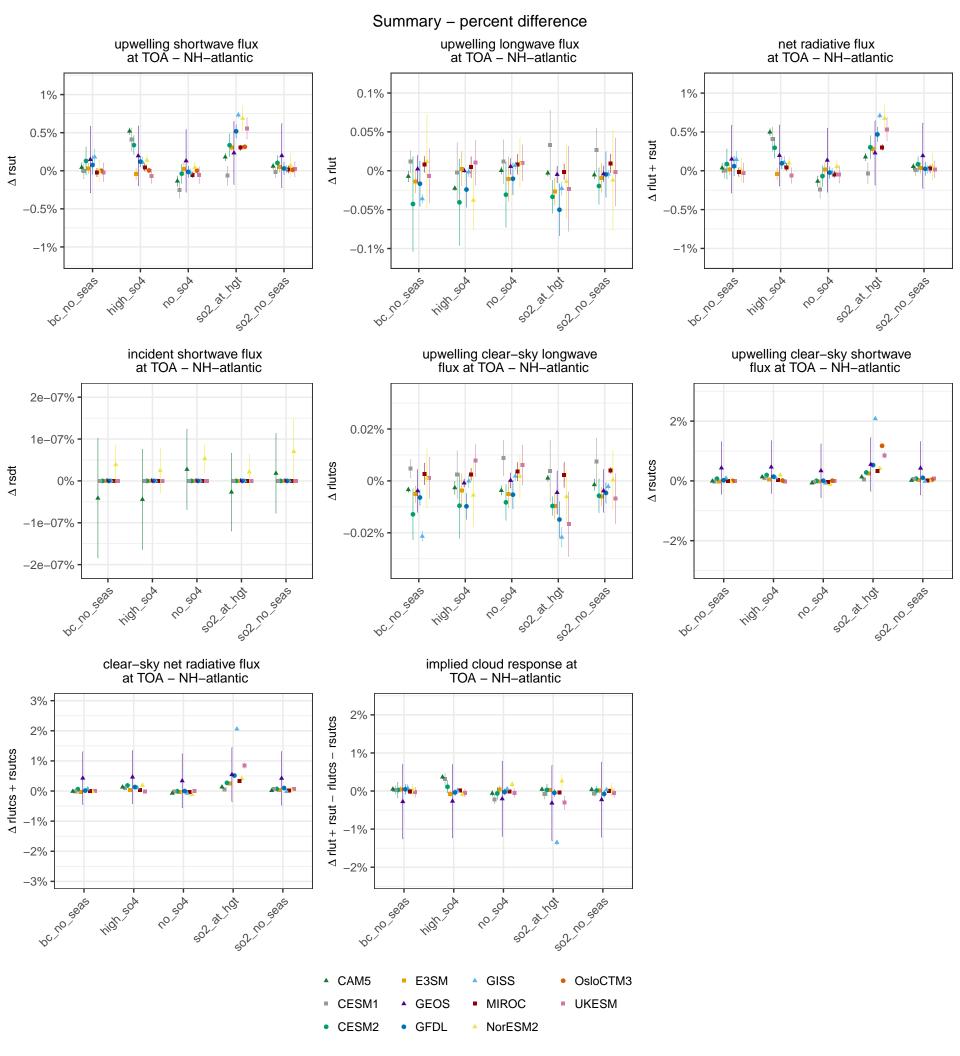
GISS

MIROC

NorESM2

OsloCTM3

UKESM



Summary - percent difference total cloud cover - NH-atlantic ambient aerosol optical thickness at 550nm - NH-atlantic 0.5% 50% 0.25% Δ od550aer $\Delta \, { m clt}$ 0% 0% -0.25% -50% -0.5% convective cloud cover - NH-atlantic surface cloud cover - NH-atlantic 2% 0.4% 1% Δ cltc ∆ cl 0% -1% -0.4%-2% pc no seas ice water path - NH-atlantic 1% Δ clivi -1% bc no seas 7050A E3SM GISS OsloCTM3 ▲ CAM5

CESM1

• CESM2

GEOS

• GFDL

MIROC

NorESM2

UKESM

