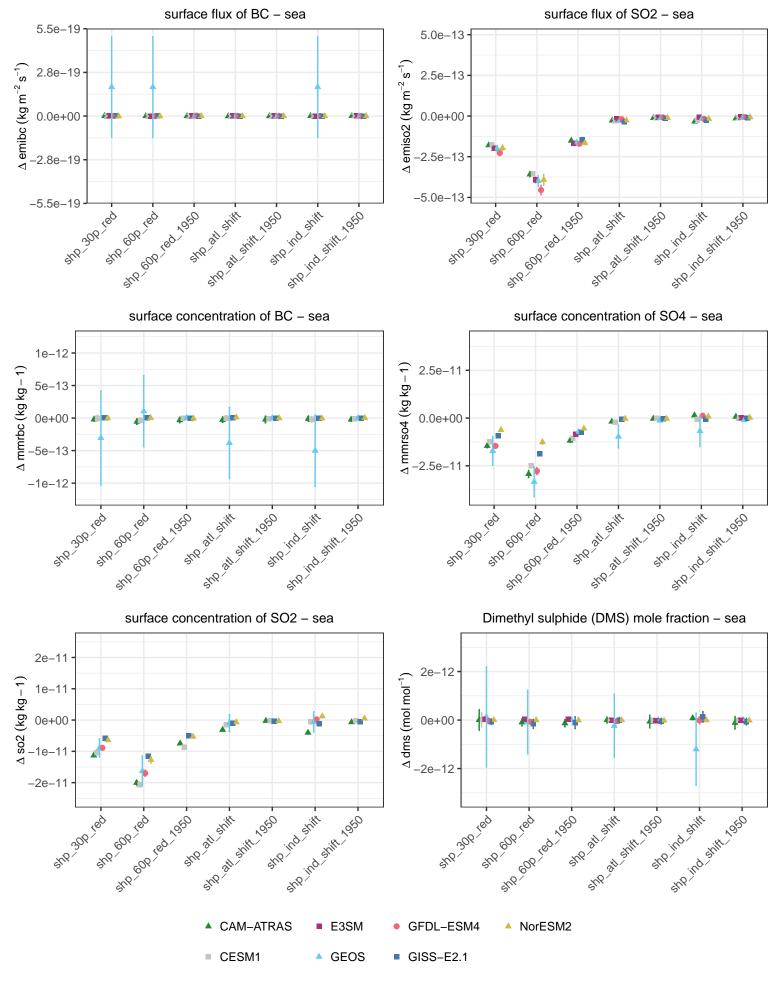
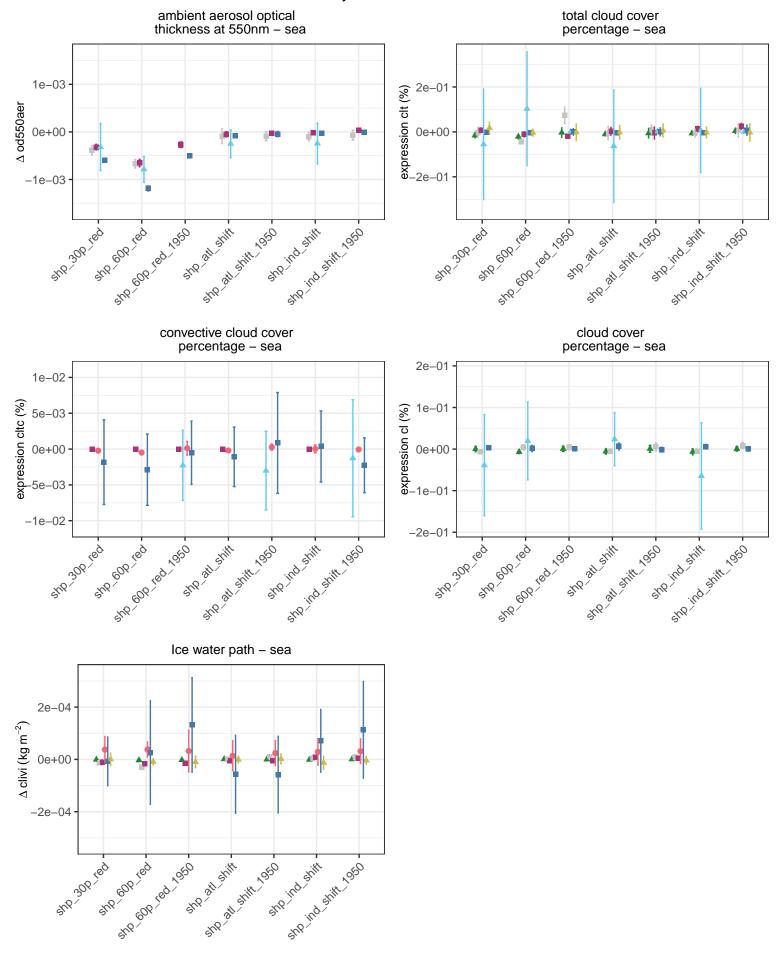
Summary – absolute difference



Summary - absolute difference upwelling longwave flux upwelling shortwave flux net radiative flux at TOA - sea at TOA – sea at TOA - sea 1.0 1.0 1.0 Δ rlut + rsut (W m – 2) Δ rlut (W m – 2) $\Delta \operatorname{rsut}(\operatorname{Wm}-2)$ 0.5 0.5 0.5 0.0 0.0 0.0 -0.5 -0.5-0.5-1.0-1.0-1.0sho ind shift 1950 +10 600 red 1950 sto all stift, 1950 310 600 red 1950 sho ind shift 1950 ste off stift, ogso ste all stift. Jose she ind shift snP at shift she ind shift STR all STIFF she ind shift sub end ing snp at shift elb log sub end ing clear-sky net radiative flux implied cloud response at TOA incident shortwave flux at TOA - sea at TOA - sea Δ rlut + rsut - rlutcs - rsutcs (W m⁻²) Δ rlutcs + rsutcs (W m – 2) 1.0 1.0 1.0 $\Delta \operatorname{rsdt} (\operatorname{Wm} - 2)$ 0.5 0.5 0.5 0.0 0.0 0.0 -0.5 -0.5 -0.5 -1.01.0 -1.0stp. ind stift. 1950 +1000 Fed 1050 +10 600 led 1950 arry and Stiff 1950 SHO IN SHIP. 1950 Stopind Shit 1950 STR and SHIPL STR STR 3H SHIP, 1950 STP ind shift STP at shift sno ind shift STP all shift she ind shift sub en leg STR all STIFF and end tog Sub Edd Teg upwelling clear-sky shortwave upwelling clear-sky longwave flux at TOA - sea flux at TOA - sea 1.0 1.0 $\Delta \operatorname{rsutcs} (\operatorname{Wm} - 2)$ Δ rlutcs (W m-2) 0.5 0.5 0.0 0.0 -0.5 -0.5 -1.0-1.0+10 600 red 1050 SHP all SHIP. sho ind shift 1950 +10 600 red 1050 SHP all SHIT, Jobo and ind shift 1950 STR at Shift snp ind shift SIRP all SHIFT she ind shift sub eab ing sub 300 leg sub en leg CAM-ATRAS ■ E3SM GFDL-ESM4 NorESM2 CESM1 GEOS GISS-E2.1

Summary - absolute difference



■ E3SM

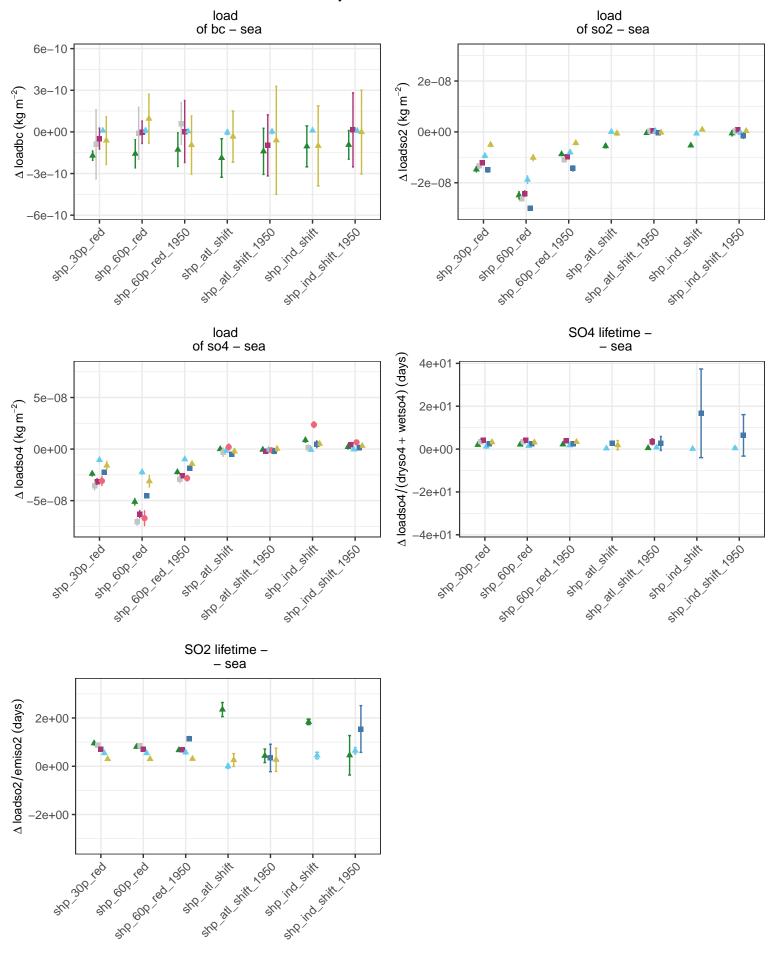
▲ GEOS

GISS-E2.1

CESM1

Summary - absolute difference dry deposition rate wet deposition rate total deposition rate of BC - sea of BC - sea of BC - sea 1.3e-15 6.1e-15 2.3e-15 Δ drybc + wetbc (kg m – 2 s – 1) Δ drybc (kg m⁻² s⁻¹) Δ wethc (kg m⁻² s⁻¹) 6.7e-16 3.1e-15 3.8e-16 0.0e + 000.0e + 00-1.5e-15 6.7e-16 -3.1e-15 -3.4e-15 STR att Strike Ind strike 314 600 181 1850 + Str. ind Stift, 1950 21.4 90 194 1940 + 1 and Sall Shift, 1980 SUN SUL SUIT JOSO SHO IN IN SHIPL OF O -1.3e-15 sub 300 leg -6.1e-15 ste 300 led -5.2e-15 stre 300 teg dry deposition rate wet deposition rate dry deposition rate of so2 - sea of so2 - sea of so4 - sea 6e-14 Δ wetso2 (kg m⁻² s⁻¹) Δ dryso2 (kg m⁻² s⁻¹) 2e-13 Δ dryso4 (kg m $^{-2}$ s $^{-1}$ 3e-3e-14 0e+00 0e+00 0e+00 ·3е--3e-14 2e-13 -6e-14 Sto off Stiff, 1960 Stop ind Stift 1950 318 600 led 1950 on all arity of SHO JIN SHIRL JOSO 214 90 to 1 , 600 leg sno ind shift SIR ALL SHIFT sno ind shift \$10³⁰⁰ teq SUB TOO (dryso2 + wetso2)/2 + (dryso4 + wetso4)/3total deposition rate wet deposition rate of S - sea of so4 - sea 5.0e-14 0.0e+00 Δ wetso4 (kg m⁻² s⁻¹) 2e-13 $(kg m^{-2} s^{-1})$ -5.0e-14 0e+00 -1.0e-13 -1.5e-13 C. Story of State of 2e-13 -2.0e-13 SHO all SHIP. sho ind shift Joso 311/20/544 41 snPind shift CAM-ATRAS ■ E3SM GFDL-ESM4 NorESM2 CESM1 GEOS GISS-E2.1

Summary - absolute difference



▲ CAM-ATRAS

CESM1

■ E3SM

GEOS

NorESM2

Summary - absolute difference Δ clear – sky shortwave flux (W m $^{-2}$) 0.10 - Δ shortwave flux (W m $^{-2}$) Δ shortwave flux (W m $^{-2}$) 0.2 0.2 0.05 -0.0 0.00 -0.2 -0.2 **-**-0.05 **-**-7.5e-085.0e-082.5e-080.0e+002.5e-08 Δ SO4 column burden (kg m⁻²) Δ SO2 column burden (kg m⁻²) Δ SO2 lifetime (days) Δ SO4 column burden (kg m $^{-2}$ 0e+00 **-**30 -∆ SO2 lifetime (days) ∆ SO4 lifetime (days) -2e-08 20 -10 -0 -0 -0e+00 -7.5e-085.0e-082.5e-080.0e+002.5e-08 -3e-08 -2e-08 -1e-08 0e+00 -3e-08 -2e-08 -1e-08 Δ SO2 column burden (kg m⁻² Δ SO2 column burden (kg m⁻²) Δ SO4 column burden (kg m $^{-2}$) 2e-12 -0e+00 Δ SO2 column burden (kg m $^{-2}$ Δ net radiative flux (W $\mathrm{m}^{-2})$ 1e-12 · Δ DMS (mol mol⁻¹) -1e-08 0.2 2e-08 -0.2 **-**-2e-12 --3e-08 -2.0e-1115e-1110e-1510e-120e+00 -3e-08 -2e-08 -1e-08 0e+00 Δ SO2 (kg kg⁻¹) Δ SO2 lifetime (days) Δ SO2 column burden (kg m⁻²) CAM-ATRAS E3SM GFDL-ESM4 ► NorESM2

CESM1

GEOS

→ GISS-E2.1