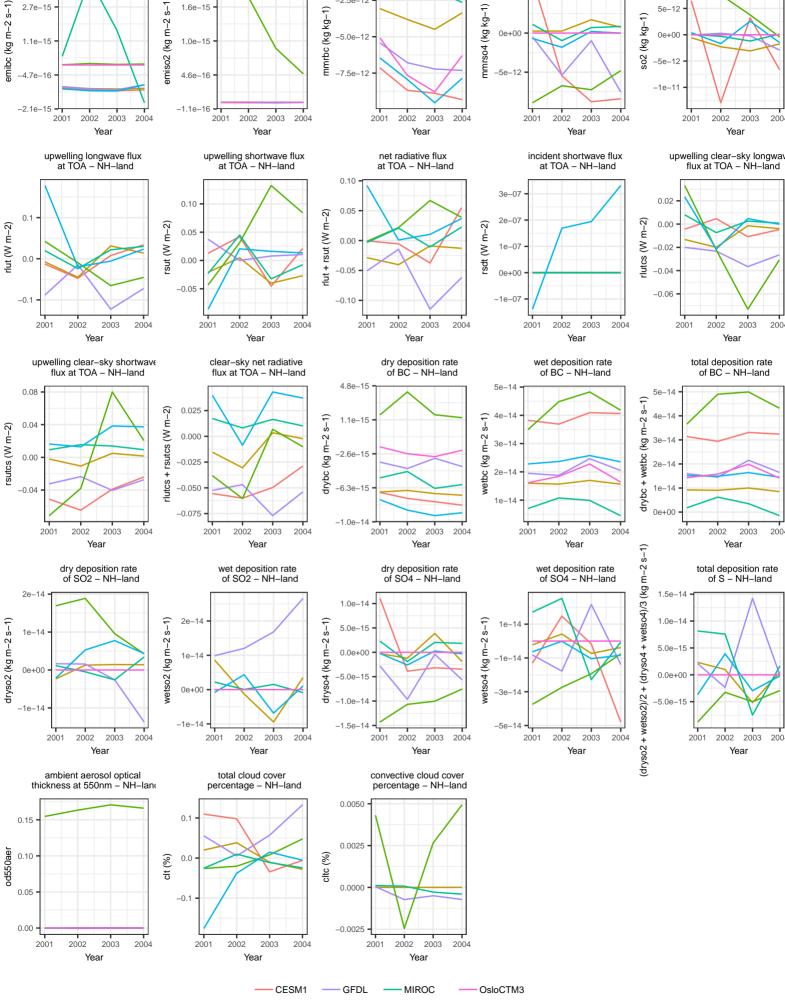
bc-no-season: absolute difference surface flux of SO2 – NH–land surface concentration surface concentration of SO4 – NH–land surface concentration of SO2 – NH–land 5e-12 emiso2 (kg m-2 s-1) mmrso4 (kg kg-1) mmrbc (kg kg-1) 5e-12 so2 (kg kg-1) 0e+00 0e+00 1.0e-15 -5e-12 -1e-11 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year upwelling shortwave flux at TOA – NH–land net radiative flux at TOA – NH–land incident shortwave flux at TOA – NH–land upwelling clear-sky longwave flux at TOA - NH-land 0.10 3e-07 0.02 0.10 0.05 rlut + rsut (W m-2) 2e-07 rlutes (W m-2) 0.00 rsdt (W m-2) 0.05 0.00 1e-07 -0.02 0.00 -0.05 -0.04 0e+00 -0.05 -0.06 -0.102001 2003 2001 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year dry deposition rate of BC – NH–land clear-sky net radiative wet deposition rate total deposition rate flux at TOA - NH-land of BC - NH-land of BC - NH-land 4.8e-15 5e-14 m-2 s-1) 0.025 drybc (kg m-2 s-1) rlutes + rsutes (W 0.000 wetbc (kg m-2 kg I 3e-14 drybc + wetbc -0.025 2e-14 -0.0501e-14 -0.075 2003 2001 2002 2003 2001 2002 2001 2003 2001 2002 2003 Year Year Year Year (dryso2 + wetso2)/2 + (dryso4 + wetso4)/3 (kg m-2 s-1) total deposition rate of S – NH–land dry deposition rate of SO4 – NH–land wet deposition rate wet deposition rate of SO2 - NH-land of SO4 - NH-land 1.0e-14 2e-14 1.0e-14 wetso2 (kg m-2 s-1) wetso4 (kg m-2 s-1) dryso4 (kg m-2 s-1) 5.0e-15 0.0e + 000.0e + 000e+00 -1.0e-14 -5.0e-15 2001 2002 2003 2004 2001 2002 2003 2004 2001 2002 2003 2004 2001 2002 2003 Year Year total cloud cover convective cloud cover percentage - NH-land 0.0050 0.0025 0.0



E3SM

GISS

NorESM2

surface flux of BC – NH–land