shp-80p-red: absolute difference surface flux of BC - NH-atlantic surface flux of SO2 - NH-atlantic surface concentration of BC – NH-atlantic surface concentration of SO4 - NH-atlantic -1.4e-12 0e+00 0e+00 emiso2 (kg m-2 s-1) emibc (kg m-2 s-1) mmrso4 (kg kg-1) mmrbc (kg kg-1) -1e-12 -1.0e-10 -1e-14 -1.2e-10 -2e-14 -3e-12 -1.4e-10 -4e-12 2000 2001 2002 2003 2000 2001 2002 2003 2000 2001 2002 2003 2000 2001 2002 2003 Year Year Year Year upwelling shortwave flux at TOA – NH–atlantic upwelling longwave flux net radiative flux at TOA - NH-atlantic surface concentration of SO2 - NH-atlantic at TOA – NH-atlantic -0 rlut + rsut (W m-2) so2 (kg kg-1) rsut (W m-2) rlut (W m-2) -0.50-0.3 0.2 -8e-1 -0.75 -0.4 2000 2001 2002 2003 2000 2001 2002 2003 2000 2002 2000 2001 2002 2003 Year Year Year Year upwelling clear–sky longwave flux at TOA – NH–atlantic upwelling clear–sky shortwave flux at TOA – NH–atlantic clear-sky net radiative flux at TOA - NH-atlantic incident shortwave flux at TOA - NH-atlantic 0.050 -0.075 0.00 m-20.09 0.025 -0.100 rsutcs (W m-2) rlutcs (W m-2) rsdt (W m-2) rlutcs + rsutcs (W -0.05 0.06 -0.125 0.000 -0.10 0.03 -0.150-0.025 -0.15 -0.175 0.00 -0.050 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year total deposition rate of BC – NH–atlantic dry deposition rate of BC – NH–atlantic wet deposition rate of BC – NH–atlantic dry deposition rate of SO2 - NH-atlantic 8.3e-16 0.0e+00 drybc + wetbc (kg m-2 s-1) -1.1e-12 m-2 s-1drybc (kg m-2 s-1) wetbc (kg m-2 s-1) -5.0e-15 -1.0e-14 -2.1e-15 dryso2 (kg -1.2e-12 -1 5e-14 -3.5e-15 -1.3e-12 -2.0e-14 -5.0e-15 2004 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2000 2001 2002 2003 2004 2000 2001 2002 2003 Year Year Year Year (dryso2 + wetso2)/2 + (dryso4 + wetso4)/3 (kg m-2 s-1) wet deposition rate dry deposition rate wet deposition rate total deposition rate of SO2 - NH-atlantic of SO4 - NH-atlantic of SO4 - NH-atlantic of S - NH-atlantic -1.2e-16 -1.2e-13 wetso2 (kg m-2 s-1) dryso4 (kg m-2 s-1) wetso4 (kg m-2 s-1) -1.2e-16 -8.4e-13 -8e-13 -1.3e-16 -9e-13 -2.0e-13 9.0e-13 -1.4e-16 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year CESM1 GISS (all em) GISS (SO2)