## so2-no-season: absolute difference surface flux of SO2 – SH–land surface flux of BC – SH–land surface concentration surface concentration of SO4 – SH-land surface concentration of SO2 – SH–land 0.0e+00 2e-14 mmrso4 (kg kg-1) mmrbc (kg kg-1) 2e-13 so2 (kg kg-1) emiso2 (kg m-2 0e+00 0e+00 1.1e-17 -2e-14 -3.1e 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year Year upwelling shortwave flux at TOA – SH–land upwelling longwave flux at TOA – SH–land net radiative flux at TOA – SH–land incident shortwave flux at TOA – SH–land upwelling clear-sky longwave flux at TOA - SH-land 0.15 0.2 0.10 0.03 0.1 rlut + rsut (W m-2) 2e-07 rlutcs (W m-2) rsut (W m-2) rsdt (W m-2) 0.1 0.05 0.00 0e+00 0.0 0.00 0.0 -0.03 -2e-07 -0.10 -0.06 -0.22001 2003 2001 2003 2001 2003 2002 2003 2001 2002 2003 Year Year Year Year Year dry deposition rate of BC – SH–land wet deposition rate of BC – SH–land upwelling clear-sky shortwav clear-sky net radiative total deposition rate flux at TOA - SH-land flux at TOA - SH-land of BC - SH-land 0.075 3.2e-16 3.3e-15 3.2e-15 0.10 drybc + wetbc (kg m-2 s-1) m-2) wetbc (kg m-2 s-1) 0.050 drybc (kg m-2 s-1) 1.8e-15 1.7e-15 0.05 rlutcs + rsutcs (W 0.025 2.8e-16 1.3e-16 0.00 0.000 -2 1e-16 -0.05 -0.025 -2 7e-15 2001 2003 2004 2001 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year Year wetso4)/3 (kg m-2 s-1) wet deposition rate of SO4 – SH–land total deposition rate of S – SH–land dry deposition rate wet deposition rate dry deposition rate of SO2 - SH-land of SO2 - SH-land of SO4 - SH-land 9.0e-15 6e-13 2.0e-13 2e-14 wetso2 (kg m-2 s-1) dryso4 (kg m-2 s-1) wetso4 (kg m-2 s-1) 3.6e-15 1e-14 (dryso2 + wetso2)/2 + (dryso4 1.0e-13 2e-14 0e+00 0e+00 0.0e+00 -2e-14 2001 2002 2003 2004 2001 2002 2003 2001 2002 2003 2004 2001 2002 2003 2004 2001 2002 2003 2004 Year Year ambient aerosol optical convective cloud cover total cloud cover percentage - SH-land percentage - SH-land 1e-03 0.006 0.2 0.003 5e-04 0.1 cltc (%) clt (%) 0.000 0.0 0e+00 -0.003 -0.

emibc (kg m-2 s-1)

rlut (W m-2)

rsutcs (W m-2)

dryso2 (kg m-2 s-1)

od550aer

-5e-04

2001

2002

2003

Year

2004

