global: absolute difference surface flux of BC – shp–ind–shift surface flux of SO2 – shp–ind–shift surface concentration of BC – shp-ind-shift surface concentration surface concentration of SO4 - shp-ind-shift of SO2 - shp-ind-shift $\mathrm{emibc}\,(\mathrm{kg}\,\mathrm{m}^{-2}\,\mathrm{s}^{-1})$ nmrbc (kg kg-1) emiso2 (kg m $^{-2}$ s $^{-1}$ 5.8e-20 1.2e-16 (kg kg - 1)1.0e-12 nmrso4 (kg kg 0.0e+00 3.7e-20 5.0e-13 -5 0e-14 0e+00 so2 1.6e-20 -3.9e-17 0.0e+00 -1.0e-13 _1e_12 -5 2e-2 _1 2e_16 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year upwelling longwave flux at TOA – shp–ind–shift upwelling shortwave flux at TOA – shp–ind–shift upwelling clear-sky longway flux at TOA - shp-ind-shi incident shortwave flux at TOA – shp-ind-shift net radiative flux at TOA - shp-ind-shift 5.0e-02 0.0e+00 0e+00 m^{-2} 4e-03 00+00 5 rlut (Wm-2)rsdt (Wm-2)rlutcs (W mrsut (W r -5.0e-03 -sut (W m--1e-02 0.0e + 0.00e+00 -2e-02 -1.0e-02 -2e-02 -2 5e-02 4e-03 -3e-02 -1.5e-02 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year upwelling clear-sky shortwa implied cloud response dry deposition rate wet deposition rate clear-sky net radiative flux at TOA - shp-ind-shi flux at TOÁ - shp-ind-shif at TOA - shp-ind-shift of BC - shp-ind-shift of BC - shp-ind-shift rsutcs (W m^{-2}) 1e-02 lutcs + rsutcs (W m $^{-2}$) 0.0e+00 rsutcs (W m-2) 0e+00 6.3e-18 6.2e-17 drybc (kg $m^{-2} s^{-1}$ wetbc (kg m⁻² s⁻ -5.0e-03 -1e-02 -5e-03 rlutcs -1.0e-02 -1e-02 rsut -1.5e-02 į 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year Year Year Year total deposition rate of BC – shp-ind-shift dry deposition rate of SO2 – shp–ind–shift wet deposition rate of SO2 – shp-ind-shift dry deposition rate of SO4 – shp–ind–shift wet deposition rate of SO4 – shp-ind-shift 5e-17 -5.6e-15 3.4e-15 1.5e-14 $drybc + wetbc (kg \ m^{-2} \ s^{-1})$ dryso4 (kg $\mathrm{m}^{-2}\,\mathrm{s}^{-1}$ dryso2 (kg m $^{-2}$ s $^{-1}$ wetso2 (kg m⁻² s⁻ 3e-17 wetso4 (kg m^{-2} 1e-17 -6.5e-15 -5.8e-18 -1.2e-15 9.8e-15 -5.8e-15 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year dryso2 + wetso2)/2 + (dryso4 + wetso4)/3Ice water path - shp-ind-spimethyl sulphide (DMS) mole fraction total deposition rate cloud cover ambient aerosol optical thickness at 550nm - shp-ind-shif of S - shp-ind-shift percentage - shp-ind-shi 1e-04 clivi (kg m⁻²) _lom lom) smp 5.0e-03 5e-05 $(kg m^{-2} s^{-1})$ ctc 5e-14 0.0e+00 od550aer 2.1e 0e+00 -5 0e-03 0e+00 -1.0e-02 -5e-05 -5e-14 -1.5e-02 1.9e-15 20002001200220032004 2000 2001 2002 2003 2004 2002 2003 2004 2002 2003 2004 2000 2001 2000 2001 Year Year Year Year Year load load of so4 - shp-ind-shift of bc - shp-ind-shift 1.7e-08 1.5e-08 $\log \log (\log \, m^{-2})$ oadbc (kg m⁻² 1.3e-08 -2e-11 1.0e-08 7.5e-09 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year