bc-no-season: absolute difference surface flux of SO2 – bc–no–season surface concentration of SO4 – bc–no–season surface flux of BC – bc–no–season surface concentration surface concentration of SO2 – bc–no–season 0.0e+00 1.0e+00 3e+00 emibc (kg m-2 s-1) kg nmrbc (kg kgso2 (kg kg-1) 2e+00 mmrso4 (kg -5.0e+01 -5 0e+00 1e+00 _7 5e+01 0e+00 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year upwelling shortwave flux at TOA – bc–no–season incident shortwave flux at TOA – bc–no–season upwelling clear-sky longwav flux at TOA - bc-no-seaso net radiative flux at TOA - bc-no-season 2.0e-08 rlut + rsut (W m-2) 56-02 5e-02 1.5e-08 rlutcs (W m-2) sdt (W m-2) sut (W m-2) 0e+00 1.0e-08 0e+00 -5e-02 0.0e+00 2002 2003 2002 2003 2001 2002 2003 2001 2002 2003 2004 2001 2001 Year Year clear-sky net radiative dry deposition rate wet deposition rate total deposition rate flux at TOA - bc-no-season of BC - bc-no-season of BC - bc-no-season of BC - bc-no-season 0.0e + 0.0e +5e+00 drybc + wetbc (kg m-2 s-1) rlutcs + rsutcs (W m-2) 1e-01 -2.5e+00 wetbc (kg m-2 s-1) drybc (kg m-2 s-1) 0e+00 -5.0e+00 5e-02 -5e+00 -1.5e+01 -7.5e+00-1e+01 -2.0e+01 2001 2002 2003 2002 2003 2004 2001 2002 2003 2001 2002 2003 Year Year Year Year wetso4)/3 (kg m-2 s-1) dry deposition rate of SO4 – bc–no–season wet deposition rate wet deposition rate total deposition rate of SO2 - bc-no-season of SO4 - bc-no-season of S - bc-no-season dryso4 (kg m-2 s-1) wetso2 (kg m-2 s-1) 2e-01 2.5e-01 2e+00 (kg m-2)(dryso2 + wetso2)/2 + (dryso4 + -1.0e+00 0e+001e+00 -2e-01 -2.0e+00 2001 2002 2003 2001 2002 2003 2001 2002 2003 2001 2003 Year Year Year Year total cloud cover convective cloud cover percentage - bc-no-seaso percentage - bc-no-season 5.0e-02 0.0e+00 0e+00 -01

