so2-at-height: absolute difference surface flux of BC – sea surface flux surface concentration surface concentration surface concentration of SO2 - sea of BC - sea of SO4 - sea of SO2 - sea 6.9e-21 0e+00 mmrbc (kg kg-1) əmiso2 (kg m $^{-2}$ s $^{-1}$ mmrso4 (kg kgso2 (kg kg-1) 5.0e-22 0e+00 -2 7e-2 -3e-11 -5.9e-2 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2002 2003 2004 Year Year Year Year Year upwelling longwave flux at TOA – sea upwelling shortwave flux at TOA – sea incident shortwave flux net radiative flux at TOA – sea at TOA - sea 0e+00 1e-01 rlut + rsut (W m^{-2}) -1e-01 rlutcs (W m-2) rsut (Wm-2)rsdt (Wm-2)5e-02 00+00 0e+00 -3e-01 -5e-02 -1e-07 -4e-01 -4e-01 -1e-012002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2000 2001 2000 2001 Year Year Year Year upwelling clear-sky shortway flux at TOA - sea dry deposition rate of BC – sea wet deposition rate of BC – sea clear-sky net radiative implied cloud response flux at TOA - sea at TOA - sea rlutcs - rsutcs (W m⁻²) 0e+00 0e+00 rlutcs + rsutcs (W m⁻²) wetbc $(kg m^{-2} s^{-1})$ 0e+00 $drybc (kg m^{-2} s^{-1})$ -1e-0 -1e-01 -2e-01 -2e-01 -3e-01 -01 rsut – -2.6e--2e-0° -4e-01 를 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 dry deposition rate of SO2 – sea dry deposition rate of SO4 – sea total deposition rate of BC – sea wet deposition rate wet deposition rate of SO2 - sea of SO4 - sea 1.6e-15 1.6e-13 wetso4 $(kg m^{-2} s^{-1}$ dryso2 (kg $\mathrm{m}^{-2}\,\mathrm{s}^{-1}$ wetso2 (kg m^{-2} s⁻¹ dryso4 (kg m^{-2} s⁻¹ 0e+00 8.0e-14 5.0e-14 -1.2e-15 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year Year total deposition rate ambient aerosol optical total cloud cover convective cloud cover percentage – sea of S – sea thickness at 550nm - sea percentage - sea 1e-01 0e+00 3e+35 expression clt (%) 5e-02 $(kg m^{-2} s^{-1})$ 양 -2e-02 2e+35 expression -4e-020e+00 1e+35 -6e-02 -8e-02

