shp-ind-shift-1950: absolute difference surface concentration of BC – SH–sea surface flux surface flux surface concentration surface concentration of SO2 - SH-sea of BC - SH-sea of SO4 - SH-sea of SO2 - SH-sea 1.0e-05 2e-01 5.0e-06 5e-03 2e-01 1e-01 0e+00 ∆ emiso2 0.0e+00 1 802 -5.0e-06 0e+00-1.0e-05 -2e-01 0e+00 2000 2001 2002 2003 2004 2002 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2000 2001 Year Year Year Year Year upwelling longwave flux at TOA – SH–sea upwelling shortwave flux at TOA – SH-sea net radiative flux at TOA – SH–sea upwelling clear-sky longwar flux at TOA - SH-sea incident shortwave flux at TOA – SH–sea 5.0e-02 2.5e-02 5.0e-03 1.5e-02 0.0e+00 0.00+00 rsut 1.0e-02 -2.5e-02-2.5e-02 0.0e + 0.0e +△ rlut 0.0e+005.0e-03 0.0e+0.0-2 5e-02 _7 5e_02 _2 5e_03 _7 5e_02 -5.0e-03 -1.0e-01 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 dry deposition rate of BC – SH–sea upwelling clear-sky shortway clear-sky net radiative implied cloud response wet deposition rate flux at TOA - SH-sea flux at TOA - SH-sea at TOA - SH-sea of BC - SH-sea rsutcs) 1.5e-02 2e-02 5.0e-01 2.5e-01 1e-02 1.0e-022.5e-01 rsu Δ rsutcs -2e-02 0.0e+00 5.0e-03 △ drybc 0e+00 0.0e+00 -2.5e-01 rsut -2.5e-01 -6e-02 -5.0e-03 -5.0e-01 -5e-03 ₹ 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 dry deposition rate of SO2 – SH-sea dry deposition rate of SO4 – SH-sea total deposition rate of BC – SH–sea wet deposition rate of SO2 – SH–sea wet deposition rate of SO4 – SH-sea 1e-02 2.5e-01 5.0e-02 5e-03 drybc + wetbc 0.0e+00 0e+00 ∆ dryso2 1.5e-01 2e-01 0e+00 -5.0e-02 1.0e-01 -5e-01 -5e-03 -1.0e-01 1e-01 -1e+00 0.0e+00 -1e-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 dryso2 + wetso2)/2 + (dryso4 + wetso4)/3Dimethyl sulphide (DMS) mole fractic total deposition rate cloud cover Ice water path - SH-sea ambient aerosol optical of S - SH-sea percentage - SH-sea thickness at 550nm - SH-se 8e-01 6e-01 8 5e-02 0.0e + 00clivi (kg m⁻²) lom lom) smb expression cltc ∆ od550ae 1e-01 5e-02 4e-01 0e+00 -2.5e-02 2e-01 -5e-02 0e+00 0e+00 0e+00-5.0e-02 -1e-01 -2e-01 20002001200220032004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2002 2003 2004 2000 2001 2000 2001 Year Year Year Year Year load load of so4 - SH-sea of bc - SH-sea 4e-01 loadso4 (kg m⁻²) 4e-01 loadbc (kg m 2e-01 0e+00 -2e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year