shp-atl-shift-1950: absolute difference surface concentration of BC – NH–sea surface flux surface flux surface concentration surface concentration of BC - NH-sea of SO2 - NH-sea of SO4 - NH-sea of SO2 - NH-sea 1e-05 -5.0e-01 2e-01 0e+00 -3e-01 0e+00 1e-01 -1.5e+00-5e-01 -2e-05 -2.0e+00 -1e-0 _3e_01 -6e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2002 2003 2004 2002 2003 2004 2002 2003 2004 2000 2001 2000 2001 2000 2001 Year Year Year Year Year upwelling longwave flux at TOA – NH–sea upwelling shortwave flux at TOA – NH–sea net radiative flux at TOA – NH–sea incident shortwave flux at TOA – NH–sea upwelling clear-sky longwav flux at TOA - NH-sea 5.0e-02 2e-02 2.5e-02 5e-02 0e+00 0.0e+00 0e+00 0.0e + 0.0e +△ rlut -2e-02 -5e-03 -5e-02 -2 5e-02 -4e-02 -5 0e-02 -1e-02-6e-02 -5.0e-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 wet deposition rate of BC – NH–sea clear-sky net radiative implied cloud response dry deposition rate upwelling clear-sky shortwa of BC - NH-sea flux at TOA - NH-sea flux at TOA - NH-sea at TOA - NH-sea rsutcs) 1e-02 5e-02 0.0e+00 1e-01 0e+00 rlutcs --5.0e-03 rsu △ wetbc -1e-02 Δ drybα 0e+00-1.0e-021e_01 rsut -1e-01 -3e-02 -2.0e-02 ₹ 0e+00 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 – NH–sea dry deposition rate of SO2 – NH–sea wet deposition rate of SO2 – NH–sea dry deposition rate of SO4 – NH–sea wet deposition rate of SO4 – NH–sea -4 0e-01 -1e-01 -4 3e-01 2e-01 drybc + wetbc -4.5e-01 ∆ dryso2 1e-01 -2e-01 0e+00 -3e-01 _4e_01 -1e-01 -4.6e-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 $\frac{dyso2 + wetso2}{2 + (dyso4 + wetso4)/3}$ Ice water path - NH-sea Dimethyl sulphide (DMS) mole fraction total deposition rate cloud cover ambient aerosol optical of S - NH-sea thickness at 550nm - NH-sea 5e-02 2e-01 -4.5e-01 expression cltc (%) _lom lom) smb clivi (kg m⁻²) 0e+00 0e+00 2.5e-01 -5.0e-01 ∆ od550aeı 0.0e+00 -2e-01 -5e-02 -5.5e-01 -2.5e-01 -1e-01 -6.0e-01 20002001200220032004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year Year load load of so4 - NH-sea of bc - NH-sea 2e-01 2e-01 $\log \log (kg m^{-2})$ loadbc (kg m⁻² 1e-01 1e-01 0e+00 0e+00 -1e-01 -1e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year