shp-atl-shift-1950: absolute difference surface concentration of BC – NH–atlantic surface flux surface concentration surface concentration of BC - NH-atlantic of SO2 - NH-atlantic of SO4 - NH-atlantic of SO2 - NH-atlantic 5e+00 2.5e+01 2.0e+01 2e-01 00+00 4e+00 1 so2 1.5e+01 2 00+00 0e+00 -2e-05 3e+00 1.8e+00 -3e-05 2000 2001 2000 2001 2002 2003 2004 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year Year upwelling longwave flux at TOA – NH–atlantic upwelling shortwave flux at TOA – NH–atlantic upwelling clear-sky longwav flux at TOA - NH-atlantic net radiative flux at TOA – NH–atlantic incident shortwave flux at TOA – NH-atlantic 5 0e-02 0.0e+00 0e+00 36_01 -2.5e-02 2e-01 ∆ rlut + 2e-01 -4e-03 -5.0e-02 0.0e + 0.0e +1e_01 -7.5e-02 -8e-03 -2 5e-02 -1 0e-01 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 dry deposition rate of BC – NH–atlantic upwelling clear-sky shortway clear-sky net radiative implied cloud response wet deposition rate flux at TOA - NH-atlantic flux at TOA - NH-atlantic at TOA - NH-atlantic of BC - NH-atlantic rsutcs) 1e-01 2e-01 7.5e-02 7.5e-02 2e-01 rlutcs rsu ∆ drybc △ wetbc 5.0e-02 5.0e-02 1e-01 rlutcs 0e+00 rsut 0e+00 rlut + -2e-010.0e+00 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 Year Year Year Year Year total deposition rate of BC – NH–atlantic dry deposition rate of SO2 – NH–atlantic wet deposition rate of SO2 – NH-atlantic dry deposition rate of SO4 – NH–atlantic wet deposition rate of SO4 – NH-atlantic 2.3e+004e-01 3.2e + 0.02.1e+00 drybc + wetbc 2e-01 2.0e+00 wetso4 1 70+00 1.9e+00 0e+00 1.6e+00 1.7e+00 -2e-011.7e+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 dryso2 + wetso2)/2 + (dryso4 + wetso4)/3Ice water path - NH-atlan@imethyl sulphide (DMS) mole fraction total deposition rate cloud cover ambient aerosol optical of S - NH-atlantic percentage - NH-atlantic thickness at 550nm - NH-atlantic 8e-02 3.6e+00 1e+00 clivi (kg m⁻²) dms (mol mol 당 ∆ od550aer 4e-02 expression 0e+000e+00 0e+00 3.4e+00 -6e-0 20002001200220032004 2002 2003 2004 2002 2003 2004 2000 2001 2002 2003 2004 2000 2001 2000 2001 Year Year Year Year Year load load of so4 NH–atlantic of bc - NH-atlantic 1.5e+00 2e-01 $\log \log (\log \, m^{-2})$ 1.2e+00 loadbc (kg m⁻²) 1e-01 1.0e+00 0e+00 7.5e-01 -1e-01 2000 2001 2002 2003 2004 2000 2001 2002 2003 2004 Year