## bc-no-season: absolute difference surface flux of BC – NH–pacific surface flux of SO2 – NH–pacific surface concentration of BC – NH–pacific surface concentration of SO4 – NH–pacific surface concentration of SO2 – NH–pacific 2.0e-11 0e+00 əmiso2 (kg m $^{-2}$ s $^{-1}$ nmrbc (kg kg<sup>-1</sup> nmrso4 (kg kg¯ so2 (kg kg<sup>-</sup>1 0.0e+00 0e+002002 2002 2003 2001 2003 2001 2002 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year Year shortwave flux at TOA – NH–pacific net radiative flux at TOA – NH–pacific incident shortwave flux at TOA – NH–pacific clear-sky longwave flux at TOA - NH-pacific 0.2 2e-07 rlut + rsut $(W m^{-2})$ 0.0 rlutcs $(W m^{-2})$ $rsut (W m^{-2})$ $rsdt (W m^{-2})$ 1e-07 0.05 0.0 -0.2 0e+00 0.00 -0.05 -0.4 2003 2001 2002 2003 2001 2003 2001 2002 2003 2001 2002 2003 Year Year Year Year Year clear-sky net radiative implied cloud response dry deposition rate wet deposition rate flux at TOA - NH-pacific at TOA - NH-pacific of BC - NH-pacific of BC - NH-pacific rlut + rsut - rlutcs - rsutcs (W m-2) 0.04 0.1 rlutcs + rsutcs (W m<sup>-2</sup>) $drybc (kg m^{-2} s^{-1})$ wetbc (kg $m^{-2}$ s<sup>-1</sup> 0.00 0.0 -6.2e-15 -0.04 -0.1 \_0.08 2003 2002 2003 2001 2003 2003 2001 2002 2002 2003 Year Year Year Year Year dry deposition rate of SO4 – NH–pacific wet deposition rate of SO4 – NH–pacific dry deposition rate wet deposition rate of SO2 - NH-pacific of SO2 - NH-pacific 1.0e-14 $dryso2 (kg m^{-2} s^{-1})$ $dryso4 (kg m^{-2} s^{-1})$ 5.2e-15 wetso2 (kg $m^{-2}$ s<sup>-1</sup> 6.6ewetso4 (kg m<sup>-2</sup> s<sup>-1</sup>) 1.0e--1.1e-16 5.0e-14 0e+00 -6.9e 2002 2003 2004 2001 2002 2003 2004 2001 2002 2003 2001 2002 2003 2004 2001 2002 2003 2004 total deposition rate of S – NH–pacific ambient aerosol optical convective cloud cover total cloud cover thickness at 550nm - NH-pag percentage - NH-pacific percentage - NH-pacific 0.000 0.000 0.1 clt (%) -0.025 cltc -0.050 0.0 -0.050 -0.075

