Conclusions

but is calculated only for monthly averages. Total BC and OC emissions for both inventories are

Figure 1: (a) BC and (b) OC emission averages (2001-2006) from the AMMA-BB and GFEDv2 inventories for southern

RegCM3 is hydrostatic, sigma level-coordinated, grid-point limited model with compressibility [Giorgi and Shields, 1999; Pal et al., 2007]. In this study, the Grell convection scheme with Fritsch-Chappell closure is used, and the model is forced using the NCEP-NCAR II reanalysis dataset, as well as the Reynolds weekly average OISST product. Importantly, since RegCM3 is an atmosphere-only model, there is no aerosol feedback on the SST forcing.

Further details on the chemistry module can be found in Solmon et al. [2006] and Zakey et al. [2006]. Aerosols, in hydrophobic and hydrophilic forms, are assumed to be externally mixed. Three aerosol optical properties are specified: extinction coefficient, single scattering albedo and asymmetry parameters, and are transferred to the radiative package in order to estimate the aerosol radiative forcing.