AeroCom
Global dust emission inventory and scheme intercomparison
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1) Compute 1x1 degree dust emission flux fields from most global dust source inventories and emission schemes, by using the same meteorological input fields. METHOD: Modellers provide a fortran or idl module (including all input fields and size distibution info for the output of the dust emission module) to Paul Ginoux, Input (wind, surface temperature, precip, +???) Output (dust flux in model size distribution bins/modes); Modules will be used to construct dust emission by bins based on 6hourly/1x1 degree ECMWF winds.

1b) Analyse differences and preliminary analysis with satellite data. Document size resolved global emission fluxes by region. Develop scoring mechanismn. Recommend three contrasting emission fields for transport model simulations under 2)

2) Provide these emission fields for sensitivity runs in different models. Collect the results in terms of observable dust quantities.

3) Compare the resulting dust fields from these sensitivty simulations to different observational datasets. Using the Cakmur/Miller code to calculate the error between simulation and observed properties.