



Aerosols on a Cube: Development of a New Aerosol Model and Assimilation System for the Future NOAA Forecasting System.

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by Mariusz Pagowski et al. (complete list of collaborators still pending)

In 2016 NOAA chose FV3 model from GFDL as a replacement for its current global model GFS. The development of the model for operations is still on-going.

We present an implementation of aerosol module in the FV3 model and its assimilation framework. The parameterization of aerosols is based on GOCART with a more complex chemistry planned in the next stage. The assimilation methodology relies on hybrid 3D-Var and EnKF methods. Aerosol observations include aerosol optical depth at 550 nm from VIIRS satellite. We also show results and evaluation of the model and performance of different flavors of assimilation.