

4a.4 Assimilation of GPM observations in the NU-WRF ensemble data assimilation system

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Global Precipitation Measurement (GPM) is a NASA and JAXA joint mission successfully launched in 2014. The core observatory carries a microwave imager and a dual-frequency precipitation radar, and the orbit coverage extends to mid latitudes. The NASA Unified WRF Ensemble Data Assimilation System has been developed with a focus on utilizing satellite observed precipitation information and incorporating microwave and radar techniques, particularly in estimation of precipitation in liquid and frozen phases. We present the ensemble assimilation algorithms developed for GPM observations, and results from experiments carried out in during a mid-latitude winter storm.