

4th workshop on assimilating satellite cloud and precipitation observations for NWP



Contribution ID: 53

Type: **Poster presentation**

Initial Implementation of All-Sky Microwave Radiance Assimilation in NAVGEM

Precipitation and visibility forecasts are crucial for the US Navy; the assimilation of satellite observations in close proximity to the where relevant weather is occurring or will occur is of great value for tactical guidance and decision aids. Assimilation of all-sky microwave imager and sounder data for both temperature and moisture in cloudy areas is an increasingly important source of information and forecast skill at other centers such as ECMWF, NOAA, the Met Office, JMA, DWD, etc.

We have begun implementation of all-sky microwave assimilation in our global weather prediction and data assimilation system NAVGEM. Using the latest version of the Community Radiative Transfer Model (CRTM v2.3.0), we can now include cloud liquid water and cloud ice species from the NAVGEM forecasts into the radiative transfer call for microwave radiances. We will present the first look at the differences between the present system, where cloudy microwave observations are excluded, and the initial implementation of the new system that allows most cloudy radiances with increased observation error variance.

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