Progress and Plans for the use of radiance data in the NCEP global and regional data assimilation systems

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Significant changes in the use of radiance data at NCEP have been developed and are in the process of being implemented. These developments include the use of new satellite data (METOP, SSMIS), improvements in the bias correction and quality control, enhancements in the inclusion of the surface signal in the simulated radiances, the introduction of improved radiative transfer and advances in the data assimilation techniques. Details of some of these changes (e.g., new satellite data and improved radiative transfer) are covered in other talks at this meeting. This presentation will present an overview of the changes and present the impact of these changes on the overall data assimilation and forecast system. In addition, specific details of the enhancements to the bias correction technique, improvements in the incorporation of the surface signal and the significant changes in the data assimilation technique will be presented. Finally future plans for operation assimilation of satellite sounder data will be briefly discussed.
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