

CICS-MD Science Meeting

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Wenze Yang

3-2 An Improved Microwave Satellite Data Set for Hydrological and Meteorological Applications

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More than one decade of observations from the Advanced Microwave Sounding Unit-A (AMSU-A) onboard the polar-orbiting satellites NOAA-15 to NOAA-19, and European Meteorological Operational satellite program-A (MetOp-A) provide global information on atmospheric temperature profile, water vapor, cloud, precipitation, etc. After the correction of the asymmetric cross-scan bias of the AMSU-A window channels, and inter-calibration among the same sensor onboard the different NOAA (NOAA-15, -16, -17, -18 and -19) and EUMETSAT satellites, the quality of the data set has been improved regarding to symmetry and consistency, for both fundamental and thematic climate data record (CDR). Now the FCDR and TCDR data sets have been completed and are undergoing final evaluation. This update is important to the primary scientific users, including "blended" product developers and organizations, such as WCRP/GEWEX/GPCP/CMORPH, and etc, to improve their data quality accordingly.