

HOW WELL DO SATELLITE-BASED OBSERVATIONS REPRESENT DAILY RAINFALL AMOUNTS? A DISCUSSION BASED ON CASE STUDIES.

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Recently an experimental global daily product with a 1° by 1° resolution being mainly based on satellite observations (SSM/I, IR, TOVS) has been published by the WRCP Global Precipitation Climatology Project (GPCP). The results of this daily product, called GPCP-1DD, are scaled only on a monthly basis using the operational GPCC monitoring product. Up to now it is not known, how well these indirectly observed satellite-based observations actually represent daily rainfall amounts. Thus, the GPCP-1DD results need to be validated by in-situ observations.

Since observations used for verification of remote-sensing data must be unbiased, the raingauge-based analyses being used have been corrected with regard to systematic gauge measuring errors caused by wind influences and evaporation losses. Large scale comparison studies for verification of GPCP-1DD using BALTEX and MAP data sets and analyses for extreme precipitation events (Oder flooding, July 1997; Danube flooding, May 1999) will be presented at EGS 25th General Assembly.