

30) POSTER

Development of a High-resolution Assimilated Dataset for South América

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This work is concentrated on the period from January to February 1999, when the combined TRMM-LBA and WETAMC-LBA experiments took place in southeast Amazonia. The experiment measured temperature, moisture and wind profiles from rawinsondes, surface fluxes, soil parameters, precipitation, etc. The Regional Physical-space Statistical Analysis System (ETA/RPSAS), implemented at CPTEC since 1999, was used to produce a high-resolution reanalysis (40 km) for this pilot period. Results for whole South America circulation obtained with this reanalysis get a better agreement with the observation and a more detailed structure. On a longer time scale, this regional system will be the engine for a regional South American Project, which will serve the purpose of refining the data products available with recent reanalysis from NCEP, ECMWF and DAO. These regional data assimilation datasets represent an advancing in our understanding of the South American climate and synoptic climatology, given its high resolution and utilization of observational data not yet available to the global reanalysis aforementioned. This work will also serve as a “proof of concept” for a long-term reanalysis project for the South America.