



Validation of Cloud Top Pressure derived from MSG-SEVIRI observations through a comparison with independent observation

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For the validation of the various cloud top pressure products implemented in the MSG-MPEF, a number of scenes during an intensive observation period have been analysed. The validation is based on a comparison with cloud top pressures from independent sources: i) cloud top pressures estimated from space born sensors (MERIS and AATSR on ENVISAT, MISR,MODIS on TERRA and AQUA), ii) cloud top pressures from radiosonde observations and iii) cloud top pressures from ground based cloud radar measurements. The individual characteristics of the retrieval algorithms allow a breakdown of the cloud top pressure comparisons with respect to cloud types (low, middle and high level clouds, thin and thick clouds, multilayer clouds), to day and night, to surface types, to the viewing geometry and to other boundary conditions and therewith a profound validation of the MSG-SEVIRI cloud top pressure products.