



Inter-comparison of CMSAF surface radiation budget data with GEWEX SRB

R. Hollmann, R.W. Mueller

Deutscher Wetterdienst, Offenbach, Germany, (rainer.hollmann@dwd.de / Fax: +49 69 8062 4955 / Phone: +49 69 8062 4923)

Since January 2005, the CM-SAF produces, archives and distributes high-quality satellite-derived products relevant for climate monitoring in operational mode. (CM-SAF, <http://www.cmsaf.dwd.de>) in high spatial resolution for an area now covering full Africa, Europe up to 80° N and parts of the North Atlantic. The mandate of the CM-SAF is climate monitoring at regional scale, realized by the generation of validated, homogeneous and consistent data sets with long term processing and reprocessing capability. The CM-SAF has started its 2nd phase lasting until 2012 making major steps forward towards a reprocessing of the MSG-data and creating climate data sets.

Besides the operational validation of the surface radiation budget products with several BSRN station in Europe and Africa, there is also a need to inter-compare on larger spatial scales with other satellite products. To achieve this, CM-SAF data have been compared with GEWEX and ISCCP radiation data sets. Overall the agreement is very good, although some regional feature can not be observed from the lower spatial resolution data products of GEWEX-SRB.

In a special effort data for the Niamey region have been processed and compared with measurements from the ARM mobile facility with the RADAGAST project. The agreement is better than 5 W/m².

This paper reports on validation exercises with surface measurements in Africa and gives results of an inter-comparison with the GEWEX –SRB data set.