

**HOAPS v3.2 Thematic Climate Data Records released from CM SAF**

Marc Schroeder<sup>†</sup>; Karsten Fennig; Axel Andersson

<sup>†</sup> DWD, Germany

Leading author: [marc.schroeder@dwd.de](mailto:marc.schroeder@dwd.de)

CM SAF's expanding suite of Thematic Climate Data Records (TCDRs) from satellite observations is tailored for applications focusing on key aspects of the Earth's atmospheric water and energy cycles and includes cloud and radiation budget parameters as well as temperature and water vapour. As a major step in the successful transition of the HOAPS climatology (Hamburg Ocean Atmosphere Parameters and Fluxes from Satellite data; <http://www.hoaps.org/>) into the CM SAF framework, the next version of HOAPS is now available from CM SAF (<http://wui.cmsaf.eu/>). This new release extends the HOAPS time series to end of 2008 and is based on an improved data record of SSM/I radiances, with the main focus on a new inter-calibration of different SSM/I sensors to further improve the homogeneity of the SSM/I radiance record. The CM SAF HOAPS 3.2 release includes precipitation, evaporation, the resulting freshwater flux, near surface wind speed and near surface humidity. Two gridded data products are available: a 6-hourly composite product and a monthly averaged product. This allows HOAPS to be used for a wide range of applications. All HOAPS parameters are available from the CM SAF web user interface <http://wui.cmsaf.eu/>. This presentation will focus on the validation of the HOAPS products against co-located instantaneous in situ observations and on the validation and evaluation against other existing climatologies derived from either in situ data or satellite observations and also against reanalysis data sets. Results show that the general climatological patterns are reproduced by all datasets. Global mean time series often agree within about 10% of the individual products, while locally larger deviations may be found for all parameters. HOAPS often agrees better with the other satellite-derived datasets than with the in situ or the reanalysis data. The agreement usually improves in regions of good in situ sampling statistics.