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The CM SAF CLAAS-2 cloud property data record

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A new cloud property data record was lately released by the EUMETSAT Satellite Application Facility on Climate Monitoring (CM SAF), based on measurements from geostationary Meteosat Spinning Enhanced Visible and Infrared Imager (SEVIRI) sensors, spanning the period 2004-2015. The CLAAS-2 (Cloud property dAtAset using SEVIRI, Edition 2) data record includes cloud fractional coverage, thermodynamic phase, cloud top height, water path and corresponding optical thickness and particle effective radius separately for liquid and ice clouds. These variables are available at high resolution 15-minute, daily and monthly basis. In this presentation the main improvements in the retrieval algorithms compared to the first edition of the data record (CLAAS-1) are highlighted along with their impact on the quality of the data record. Subsequently, the results of extensive validation and inter-comparison efforts against ground observations, as well as active and passive satellite sensors are summarized. Overall good agreement is found, with similar spatial and temporal characteristics, along with small biases caused mainly by differences in retrieval approaches, spatial/temporal samplings and viewing geometries.