

Cloud_cci+

Martin Stengel (SL) and the Cloud_cci+ team



About Cloud_cci+ The goal of the ESA Cloud_cci+ is the improvement of retrieval algorithms and processing concepts and implementations, and the development of two novel data sets based on measurements form the Spinning Enhances Visible and Infrared Imager (**SEVIRI**) and from Sea and Land Surface Temperature Radiometer (**SLSTR**). This goes a long with exploiting the additional spectral and temporal information available from SEVIRI and SLSTR compared to the AVHRR heritage channels used previously in Cloud cci

List of cloud properties retrieved:

Cloud mask / Cloud fraction
Cloud phase
Cloud optical thickness
Cloud effective radius
Cloud top pressure/height/temperature
Cloud liquid water path/ Ice water path
Joint cloud property histogram
Spectral cloud albedo
Cloud effective emissivity
Top of atmosphere upwards/downwards flux
Top of atmosphere upwards/downwards flux – clear-sky
Bottom of atmosphere (surface) upwards/downwards flux – clear-sky
Bottom of atmosphere (surface) upwards/downwards flux – clear-sky

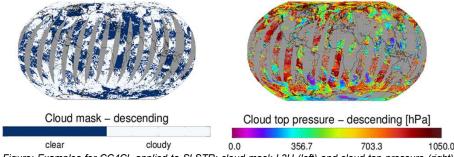
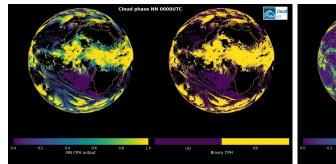
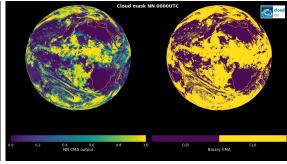


Figure: Examples for CC4CL applied to SLSTR: cloud mask L3U (left) and cloud top pressure (right) for 2017/08/22.

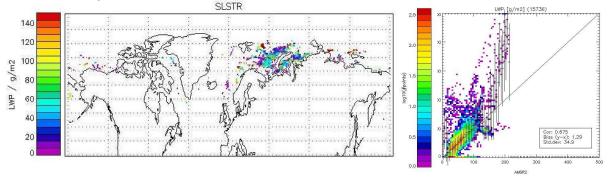
Latest results

· Revisiting SEVIRI Cloud Detection and Phase Determination using state-of-the-art Neural Networks





Validating SLSTR LWP with AMSR2



Project consortium

The project consortium of Cloud_cci+ consists of Deutscher Wetterdienst (DWD, lead), the Rutherford Appleton Laboratory (RAL) and the University of Oxford. The Project will cover three years and is expected to kick-off soon.









Slide 1/4 - This presentation loops automatically through its 4 slides – stay tuned! Please put your questions into the chat. I'll address them when I am back.