Satellite inspired hydrology in an uncertain future: a H SAF and HEPEX workshop



Contribution ID: 25

Type: Poster presentation

IMPACT OF H SAF SM-DAS-2 SOIL MOISTURE TIMELINESS ON LSA SAF EVAPOTRANSPIRATION PRODUCTS.

In the framework of the EUMETSAT's Satellite Application Facility on Land Surface Analysis (LSA SAF), a method has been developed in order to monitor the flux of water between the land surface and the atmosphere (evapotranspiration). More recently, in addition to evapotranspiration, the surface latent and sensible heat fluxes are also generated. To better understand the reasons for some remaining discrepancies, more research was conducted and it was concluded that a better description of the model forcing might be an appropriated solution. A new version of the algorithm emphasizing on a more realistic representation of the impact of vegetation parameters and soil moisture on energy and water vapour fluxes was developed. The new algorithm uses H-SAF SM-DAS-2 product combined to LSA SAF Land Surface Temperature (LST) to better describe the surface and roots zone soil moisture content.

In this contribution we present the new evapotranspiration and surface fluxes products and will illustrate the impact of SM-DAS-2 timeliness on the accuracy of generated ET and surface fluxes products. We suggest that the implementation of a reduced timeliness of the SM-DAS-2 H SAF product in the near future would be beneficial to NRT assessment of ET and related surface fluxes.

Which session would you like to present in?

1. Remote sensing, hydrological modelling and data assimilation

Primary author: Mr ARBOLEDA, Alirio (Royal Meteorological Institute of Belgium)

Co-authors: Dr BARRIOS, Jose Miguel (Royal Meteorological Institute of Belgium); Dr MEULENBEGHS, Francoise (Royal Meteorological Institute of Belgium)

Presenters: Mr ARBOLEDA, Alirio (Royal Meteorological Institute of Belgium); Dr BARRIOS, Jose Miguel (Royal Meteorological Institute of Belgium); Dr MEULENBEGHS, Francoise (Royal Meteorological Institute of Belgium)

Track Classification: H SAF and HEPEX joint workshop on "Satellite inspired hydrology for an uncertain future"