EUMeTrain Workshop
Meeting link:
https://eu01web.zoom.us/j/63492827638?pwd=QqJv4dqfZwmOIEfG3LmfzAHREgY5bC.1

Future Nowcasting SAF services and Satellite Humidity And Instability product from MTG-S/IRS data: Examples of use on practical cases with a MetOp-IASI prototype

Duration: 3.5 hours

Date: 2 June 2025

Time: From 10:30 to 12:00 CEST and from 13:30 to 15:30 CEST

Abstract: The Nowcasting SAF is planning a new software package dedicated to the new geostationary MTG-S Infrared Sounder instrument (IRS). This new software package will generate Satellite Humidity And Instability products (sSHAI) that will be key in Nowcasting using the IRS instrument. It will also deliver services to make the best use of MTG-IRS channels and combine its virtues with those of the MTG imager FCI.

In this Workshop you will learn about these revolutionary product and services. You will also have a taste of what will come in a few months with MTG-IRS by using in real world applications the prototype product obtained from the polar orbiting IASI instrument.

1.- Introduction GEO-S: Duration 1 h. From 10:30 to 11:30 CEST

Speaker: X. Calbet (AEMET)

The new Nowcasting SAF GEO-S software will have three new products and key services to forecasters: the sSHAI (sounder Satellite Humidity and Instability) product, the quickIRS, the sSHAI_ES product (sounder Satellie Humidity and Instability using EUMETSAT HQ L2) and a new Remapping tool from MTG-IRS to FCI grid. This workshop will provide an overview of these new products and services of the Nowcasting SAF.

2.- sSHAI prototype: Duration 30 min. From 11:30 to 12:00 CEST.

Speaker: N. Peinado-Galán (AEMET)

sSHAI explanation. What it is and how it works.

3.- Practical cases with course attendants using SHAI on the EWC: Duration:. 1,5 h. From 13:30 to 15:00 CEST

Speaker: N. Peinado-Galán (AEMET) and X. Calbet (AEMET)

Case studies in which convective situations will be assessed with the Nowcasting SAF sSHAI prototype product based on Metop/IASI using the ADAGUC viewer in the European Weather Cloud.

4.- Other services from the GEO-S package: quickIRS, sSHAI_ES and Remapping tool. Duration: 30 min. From 15:00 to 15:30 CEST

Speaker: Miguel-Ángel Martínez (AEMET)

Both IRS L1 data and IRS L2 products files need some processing in order to be useful as a nowcasting tool. IRS L1 data will be received by the users compressed on a reduced set of Principal Components (PCs) and on dwell files of 160x160 pixels. EUMETSAT and NWCSAF IRS L2 products are also generated on 160x160 pixels segments and on hybrid levels. As users usually request IRS L1 data on brightness temperature spectra and IRS L2 profiles on configurable sets of pressure levels, some additional software is needed. This will transform the data to fields that are useful for users, such as remapping onto the FCI grid various IRS products or specifying the atmospheric profiles of temperature and humidity onto fixed pressure levels. The software will also be able to provide sets of IRS channels or RGB images.