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<tr><td>Topic</td><td>How Clouds and Aerosols Modulate the Radiation Balance over Cape Verde</td></tr>
<tr><td>Release Date</td><td>2. October 2025</td></tr>
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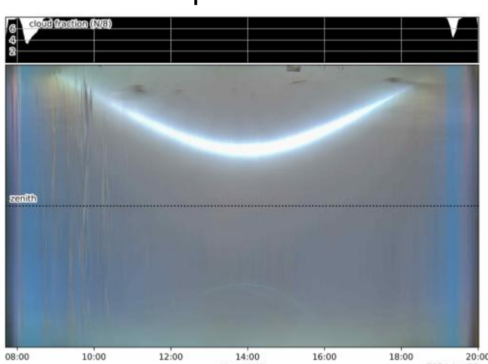
<tr><td>Description:</td><td>What influences the radiation balance in Mindelo (e.g. Island effects, desert dust, cloud regime)?
This question will be addressed by analyzing broadband and spectral aerosol and cloud radiative effects with a focus on radiation closure studies at Mindelo (Cape Verde) ACTRIS station, using new geostationary satellite (MTG) and reference surface observations.
The study includes:

Cloud and aerosol cases selected from the novel Flexible Combined Imager (FCI) onboard MTG.
Use of radiation transfer forward model for spectral and broadband simulations with input from surface observations (e.g., Cloudnet including cloud radar, lidar and microwave radiometer)
Radiative closure with model simulation, and satellite and surface observations for validation.
First comparisons with new EarthCARE radiation products.

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Literature:	Clerbaux, N., Bertrand, C., Caprion, D., Depaepe, B., Dewitte, S., Gonzalez, L., & Ipe, A. (2005). Narrowband-to-broadband conversions for SEVIRI. Velázquez Blázquez, A., Domenech, C., Baudrez, E., Clerbaux, N., Salas Molar, C., and Madenach, N.: Retrieval of top-of-atmosphere fluxes from combined EarthCARE lidar, imager, and broadband radiometer observations: the BMA-FLX product, Atmos. Meas. Tech., 17, 7007–7026, https://doi.org/10.5194/amt-17-7007-2024, 2024.