EUMETSAT Central Facility Aerosol Activities

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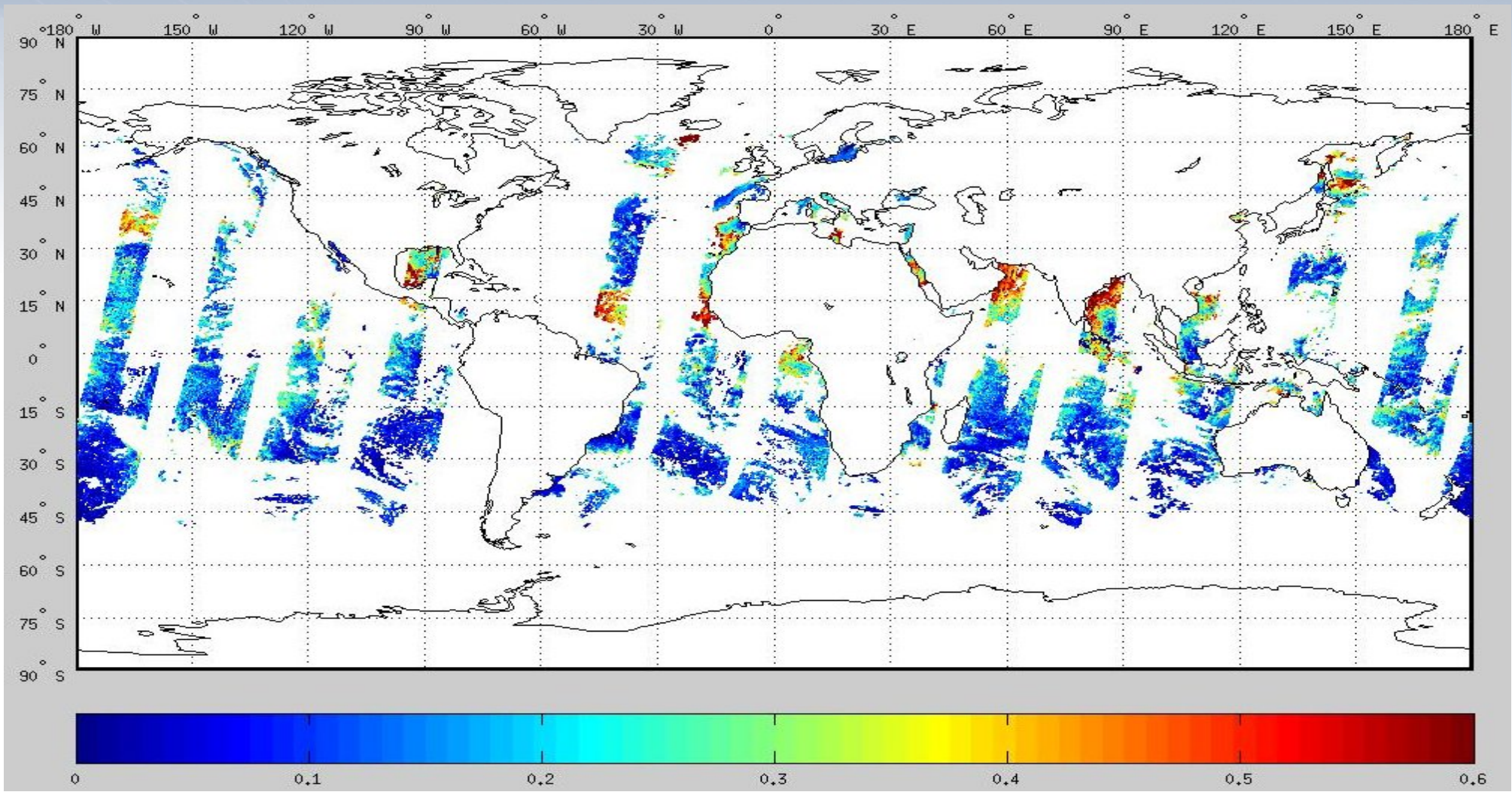
Products from Current Missions

- PMAp: Polar Multi-sensor Aerosol product developed at EUMETSAT (M. Grzegorski, G. Poli & A. Holdak)
  - AOD over ocean & cloud products operational in Q1 2014
  - AOD over land (PMAp second generation)
- MSG Aerosol Optical Depth Product

PMAp results: Aerosol Optical Depth (23/05/2011)



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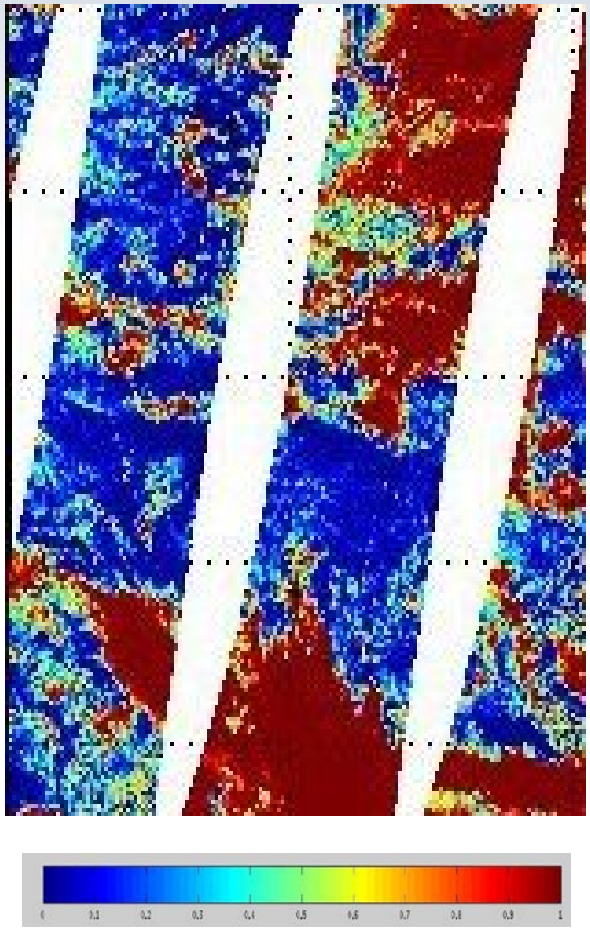
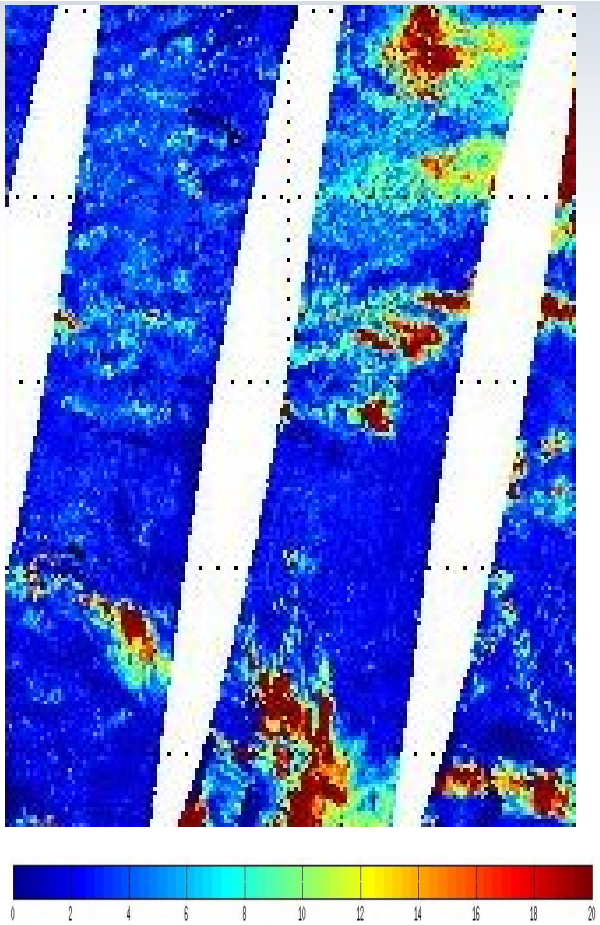
PMAp: Cloud products

PMAp: cloud fraction

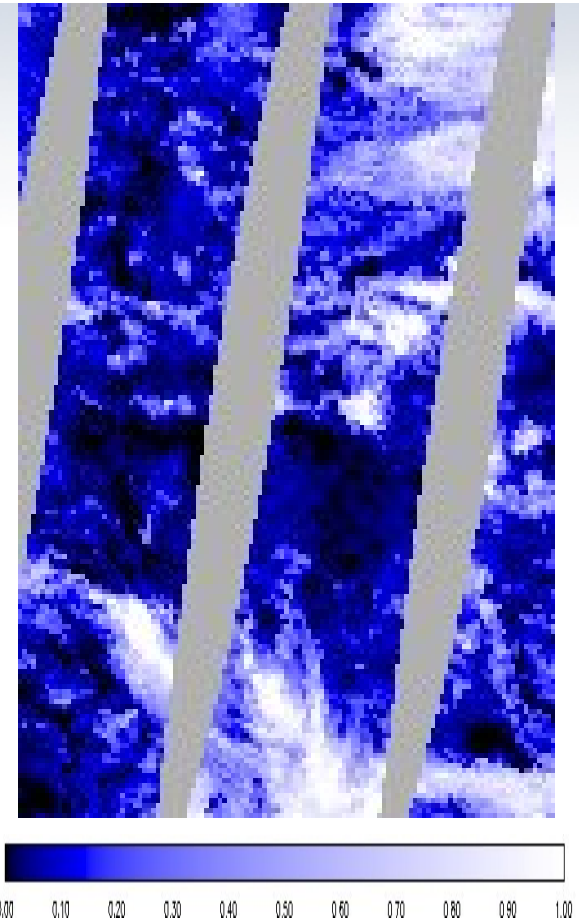


PMAp: cloud optical depth

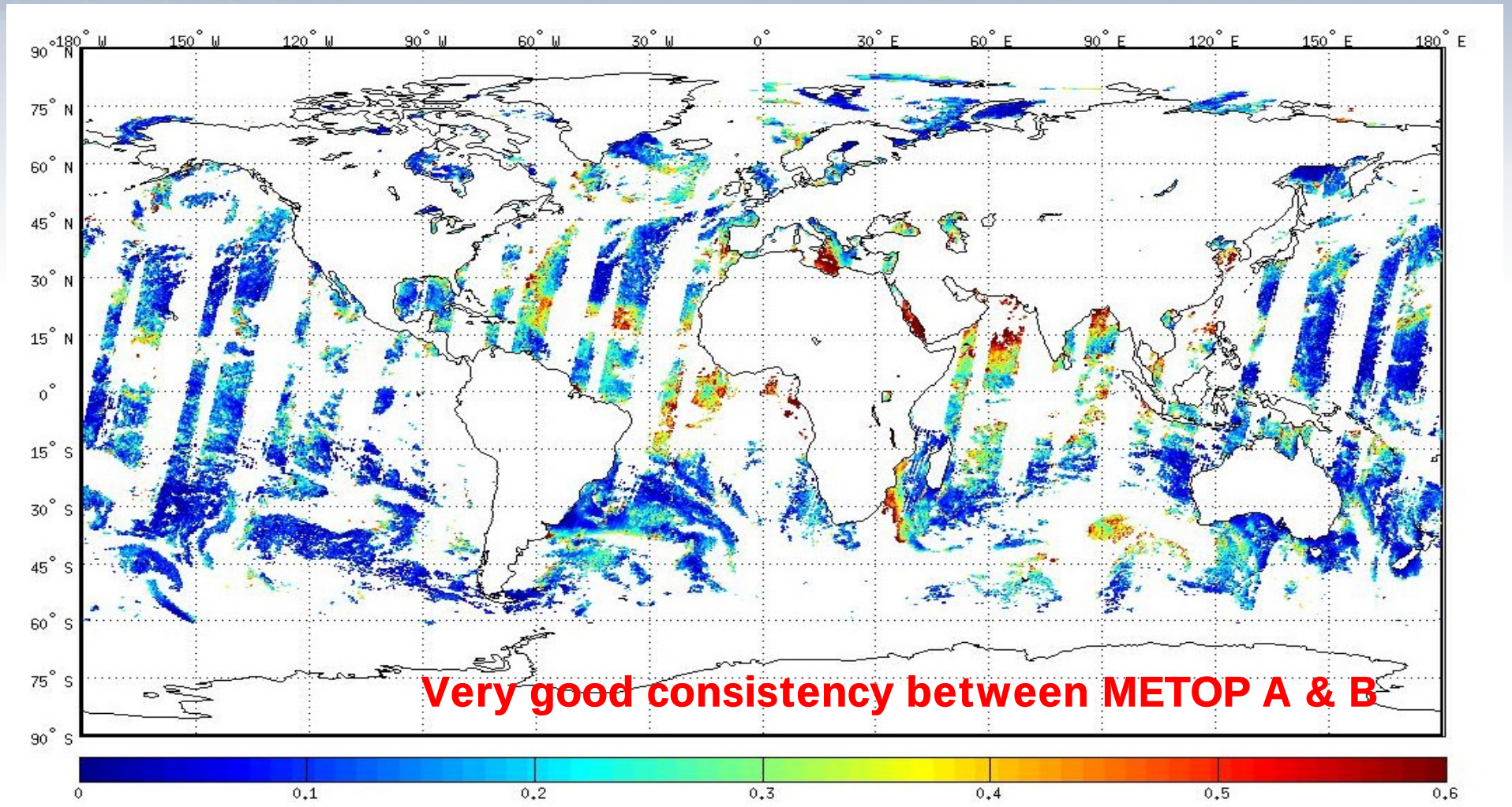


FRESCO (www.temis.nl)

Effective cloud fraction



PMAp tandem operations: AOD Metop A & Metop B



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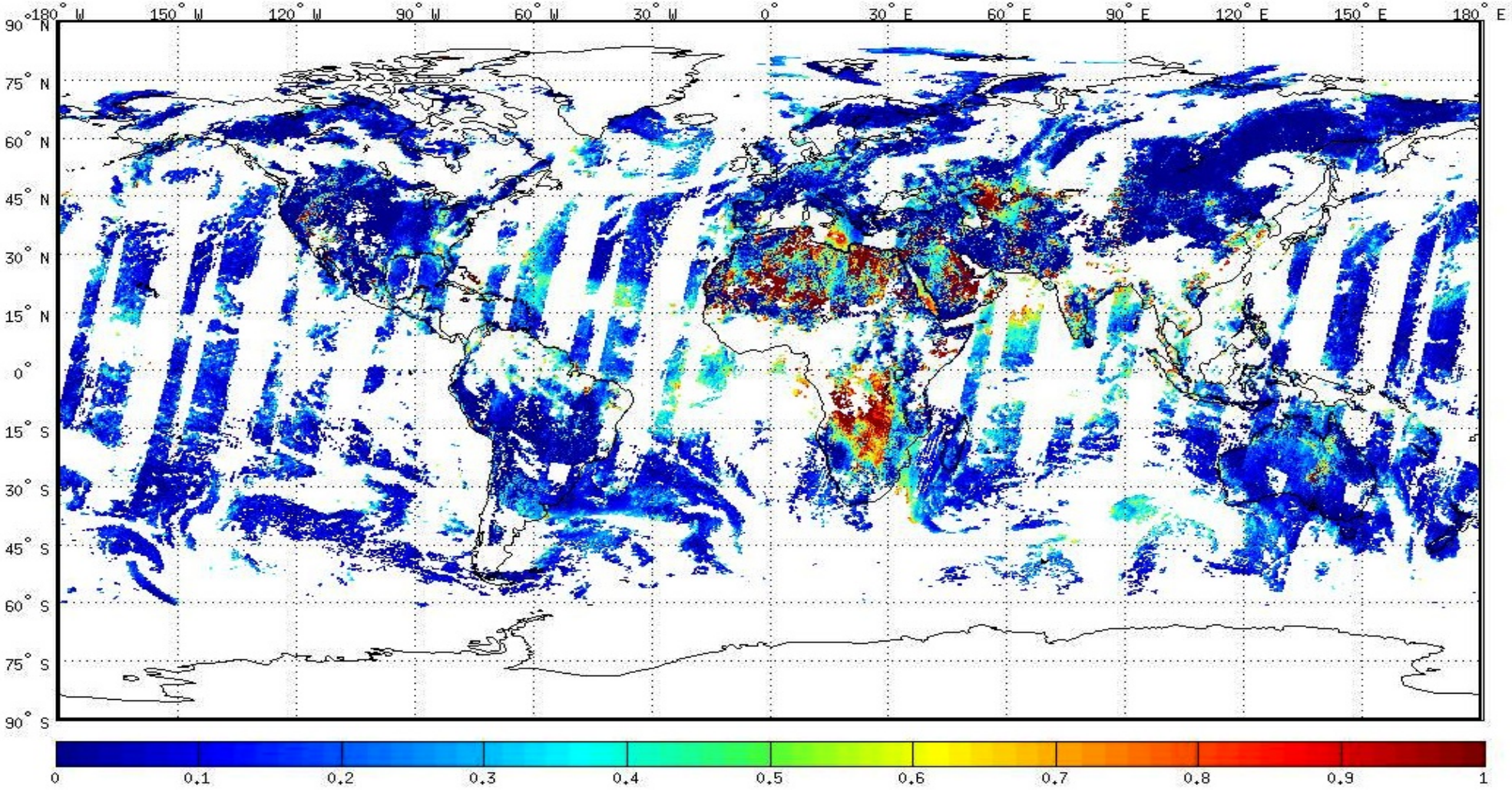
PMAp AOD over land: first results (30/08/2013)



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Products from Current Missions

Test Users Welcomed

For test data please contact

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MSG Aerosol Optical Depth Product

- The MSG Aerosol product development will initially focus on an evaluation of the ATBD and prototype processor which have been provided by Météo-France

  "Daily Estimate of Aerosol Optical Thickness Over Land Surface based on a Directional and Temporal Analysis of SEVIRI MSG Visible Observations", JGR, Vol. 115, D10208, 2010."

- Potential for extension to a three hourly product is under evaluation

Products from Future Missions

EPS-SG 3MI

Dedicated to aerosol characterisation for:

- Climate monitoring
- Air quality monitoring and forecasting
- Numerical Weather Prediction

2D Push-broom radiometer (2200 km swath, 4 km pixel at nadir)

Provide images of the Earth TOA outgoing radiance using:

- Multi-view (10 to 14 views; angular sampling in the order of 10°)
- Multi-channel (12 channels from 410 to 2130 nm)
- Multi-polarisation (9 channels with -60°, 0°, +60° polarisers)

POLDER heritage

Synergy with METimage, Sentinel-5 and IASI-NG (satellite-A)

Products from Future Missions

Synergistic Products

MTG-I & MTG-S:

Possibility for synergistic products from Sentinel-4 (UV/Vis/NIR spectrometer) & IRS (infrared spectrometer) and also FCI (imager)

EPS-SG:

Possibility for synergistic products from Sentinel-5 (UV/Vis/NIR/SWIR spectrometer), IASI-NG (infrared spectrometer), METimage (imager) and 3MI

Collaboration through AEROSAT

Early feedback and validation of products in development welcomed

Dedicated working meetings on algorithm development valuable

Interaction with the modelling and increasingly the data assimilation community would be valuable to enable data providers to provide meaningful and usable products

Initial AEROSAT TORs

Scope very good

Could possibly be a bit more concise?

Thank you for the initiative …