The EUMETSAT Network of Satellite Application Facilities

NWC SAF

Support to Nowcasting and
Very Short Range Forecasting

SMHI

SAFNWC/PPS package:

An overview

SAFNWC User Workshop

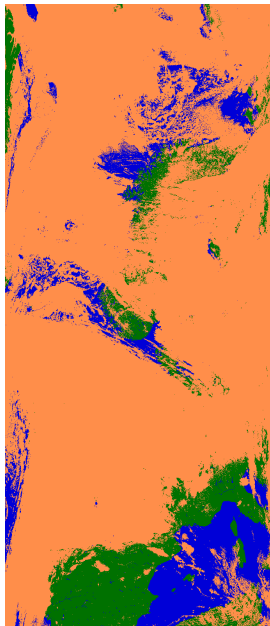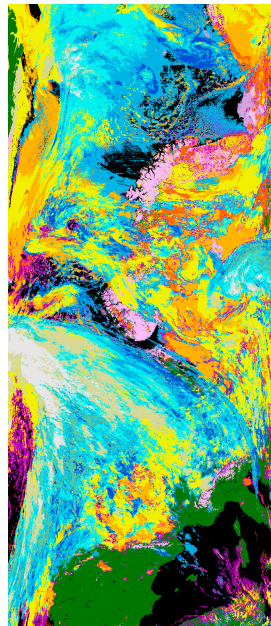**Madrid 2015-02-24**

Sara Hörnquist, SMHI

PPS Products

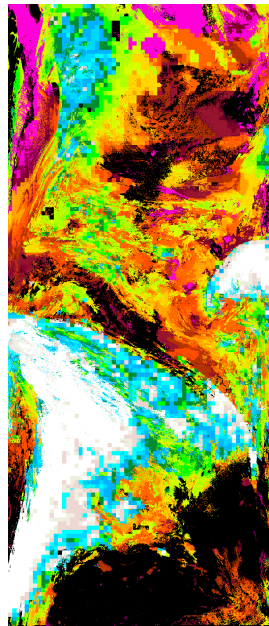----------------------------Cloud Products-------------------------------------
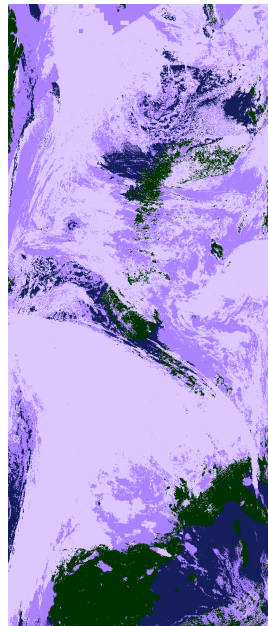
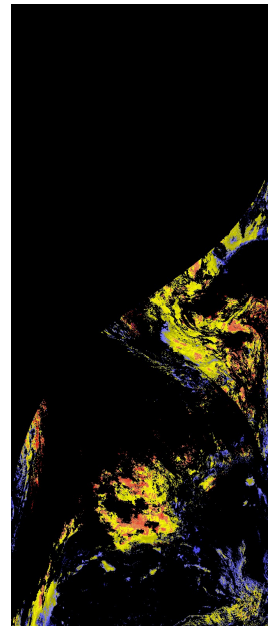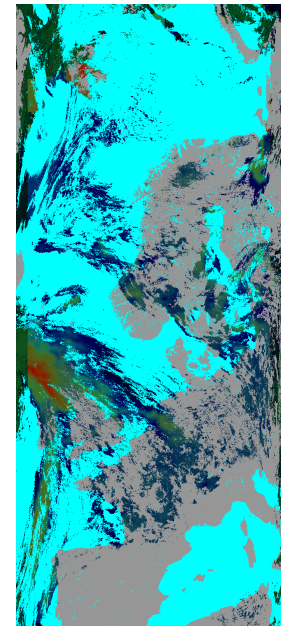Precipitation Products

Cloud Mask

Cloud Type

Cloud Top Height

Cloud Phase

Liquid Water Path

-----Cloud Physical Properties-----

Precipitating Clouds

PPS All Products

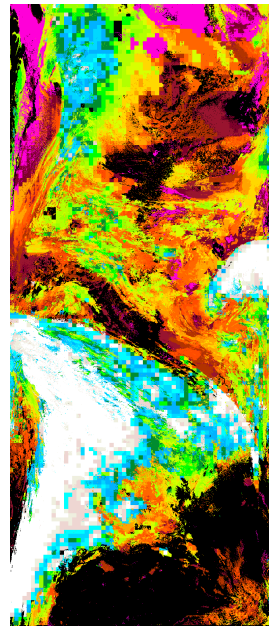-------------------------Cloud Products------------------------------------

Precipitation
Products
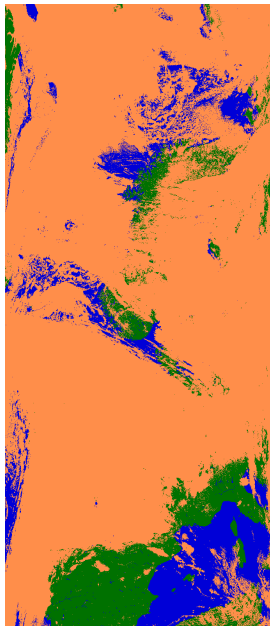
Cloud Mask
binary and
extended
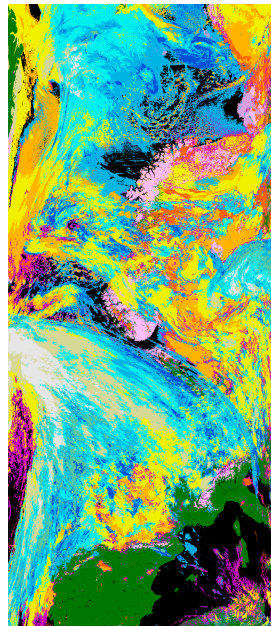
Cloud Type

Cloud Top
 Height
 Temperature
 Pressure
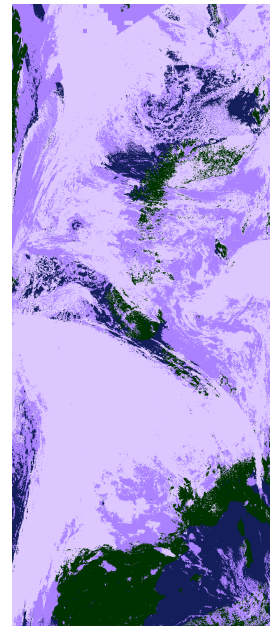
Cloud Physical Properties:
 Cloud Phase
 Liquid/Ice/Cloud Water Path
 Cloud Optical Thickness
 Effective Radius
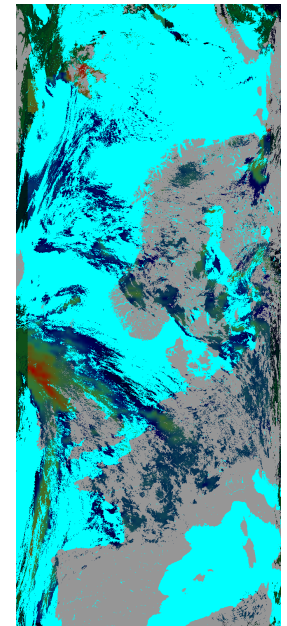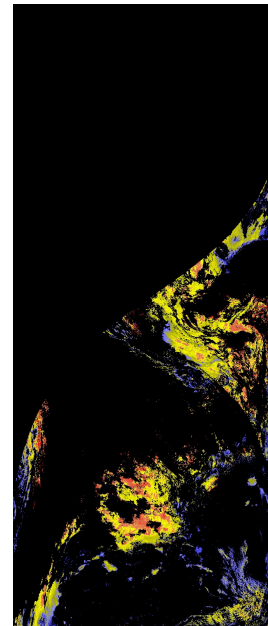
Likelihood for
 intense
 moderate
 light
 precipitation

How to get PPS products

- Run the software your self

  - in real time

  - *or* using historical data

- Receive data from EARS-NWC

  - Near real time

  - Cloud Mask, Cloud Type, CTTH

  - Metop and NOAA satellites, S-NPP TBD

Satellites and Sensors

Cloud Products

- NOAA (AVHRR)

- Metop (AVHRR)

- EOS (MODIS)

- Suomi-NPP (VIIRS)

Precipitation Product

- NOAA (AVHRR + AMSU-B/ MHS)

- Metop (AVHRR + MHS)

Satellites and Sensors Planned

- JPSS (VIIRS)

  - First launch 2017.

- FY-3D,E,F (MERSI-2)

  - Launch dates:2015-2019, FY-3E in early morning orbit!

- EPS-SG (VII, MWI/ICI)

Alternative data formats

- Direct read-out

- Global Metop (via EUMETCast)

- Archive formats including AVHRR GAC

Usage

- Nowcasting!

- Climate SAF

    − making climatologies from Cloud Mask and CTTH

    − Cloud Mask for masking (both masking clouds, and masking clear)

- Other SAF:s (OSISAF, LandSAF)

    − Using the Cloud Mask

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Versions

- PPS v2014 out since October 2014

- PPS v2014 major patch, planned in March 2015

  - Globally improved Cloud Mask (CMSAF feedback)

  - Smaller technical improvements and bug fixes

- Next ordinary version: PPS v2017, planned in spring/summer 2017

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Major technical changes

- PPS v2014:

  – Binary installation (as an alternative to conventional)

  – New output format

  – Products in both hdf5 and netcdf

- PPS v2014 patch:

  – If running part of scene, product name get adapted times

- PPS v2017:

  – Products and intermediate files in netcdf only

Thank you!