

# EUMETVIEW: THE WMS EUMETSAT IMAGE GALLERY



[HTTP://EUMETVIEW.EUMETSAT.INT](http://EUMETVIEW.EUMETSAT.INT)

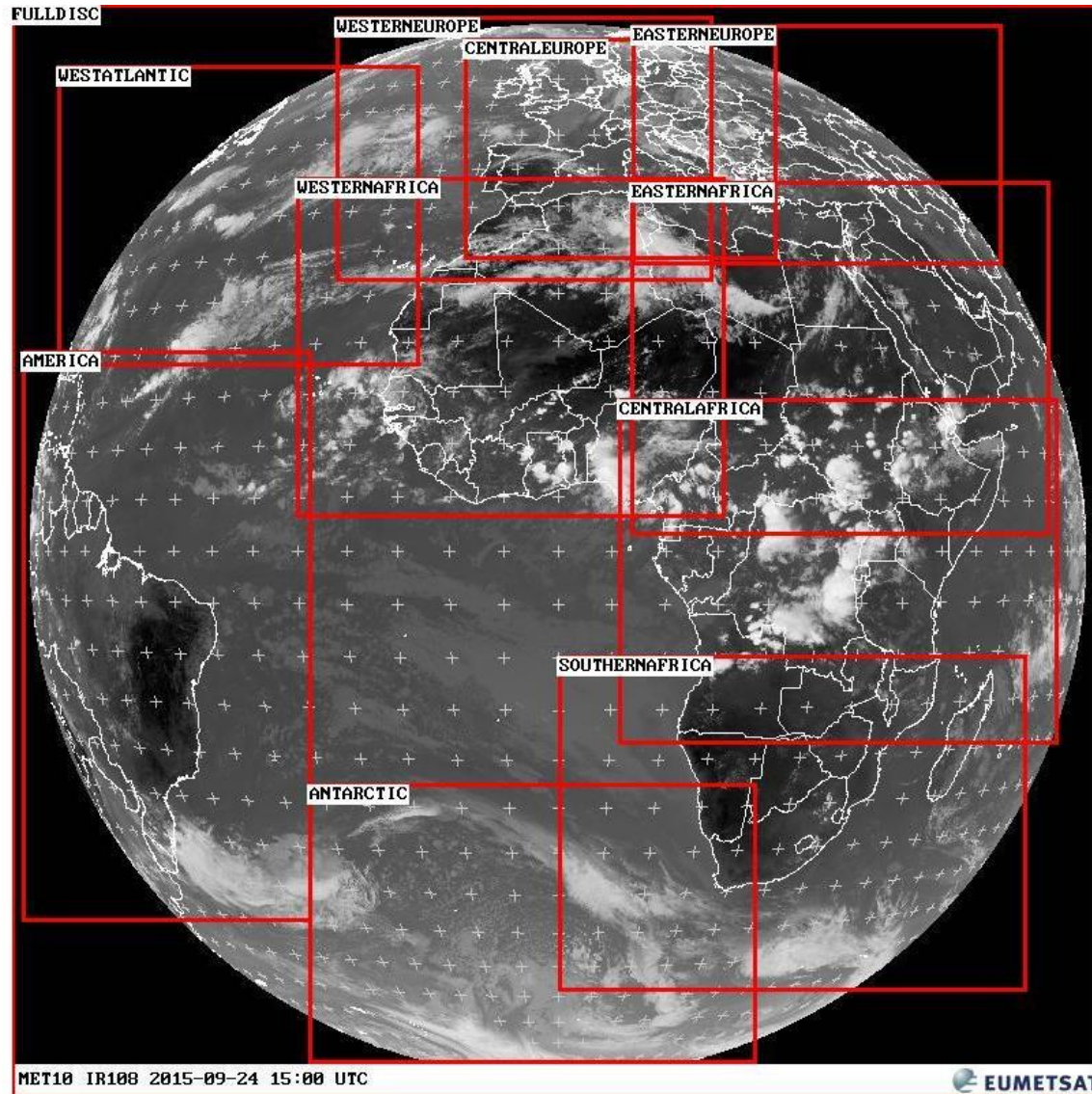


# The Current Image Gallery Service

- The Good:
  - Freely available service open to any users
  - Popular service with around 15000 images download per day
- The Bad:
  - Limited interactivity
  - Used essentially as a download service
  - Only pre-calculated raster images offered
    - Fixed areas
  - Data policy limiting service to be used by power-users
    - Image published with at least one hour delay, lower resolution

# The Current Image Gallery Service

- ▶ Meteosat IODC
- ▼ Meteosat 0 degree
  - ▼ Imagery
    - ▶ IR 3.9
    - ▼ IR 10.8
      - ▼ **Black & White**
        - ▶ Colour
        - ▶ VIS 0.6
        - ▶ WV 0.62
      - ▶ Visualised Products
      - ▶ RGB Composites
    - ▶ Metop
    - ▶ Latest Images
    - ▶ Google Earth
  - ▶ Data Centre
    - ▶ Data Policy



# EUMETView – Project Goals (1)

- Create a web-based imagery service
- For standard users (news web site)
  - Retrieve an image for a particular area of interest
- For advanced users (researcher)
  - Information analysis, cross check with other products
  - Integrate with GIS tools
  - From the images to the products
    - Use data access services
- For power users (met services)
  - Get near-real time image generation
  - Get tailored products

# EUMETView – Project Goals (2)

- Can integrate with the other EUMETSAT web-services
  - Discovery service: Product Navigator
  - Data Access Service: EO Portal and Archive
- Make image gallery products available via standardized Web Service interfaces (WMS/WCS)

# EUMETView Architecture

- OGC WMS 1.3.0

- GeoServer 2.6.5



**GeoServer**

- Postgis 2.1.6



- Interactive Web App

- OpenLayers



**OpenLayers 3.0**

- GWT



- Image Processing

- Current: Generate Geotiffs with



and

- In 2016: Generate Geotiffs with



ask - Innovative  
Visualisierungslösungen GmbH

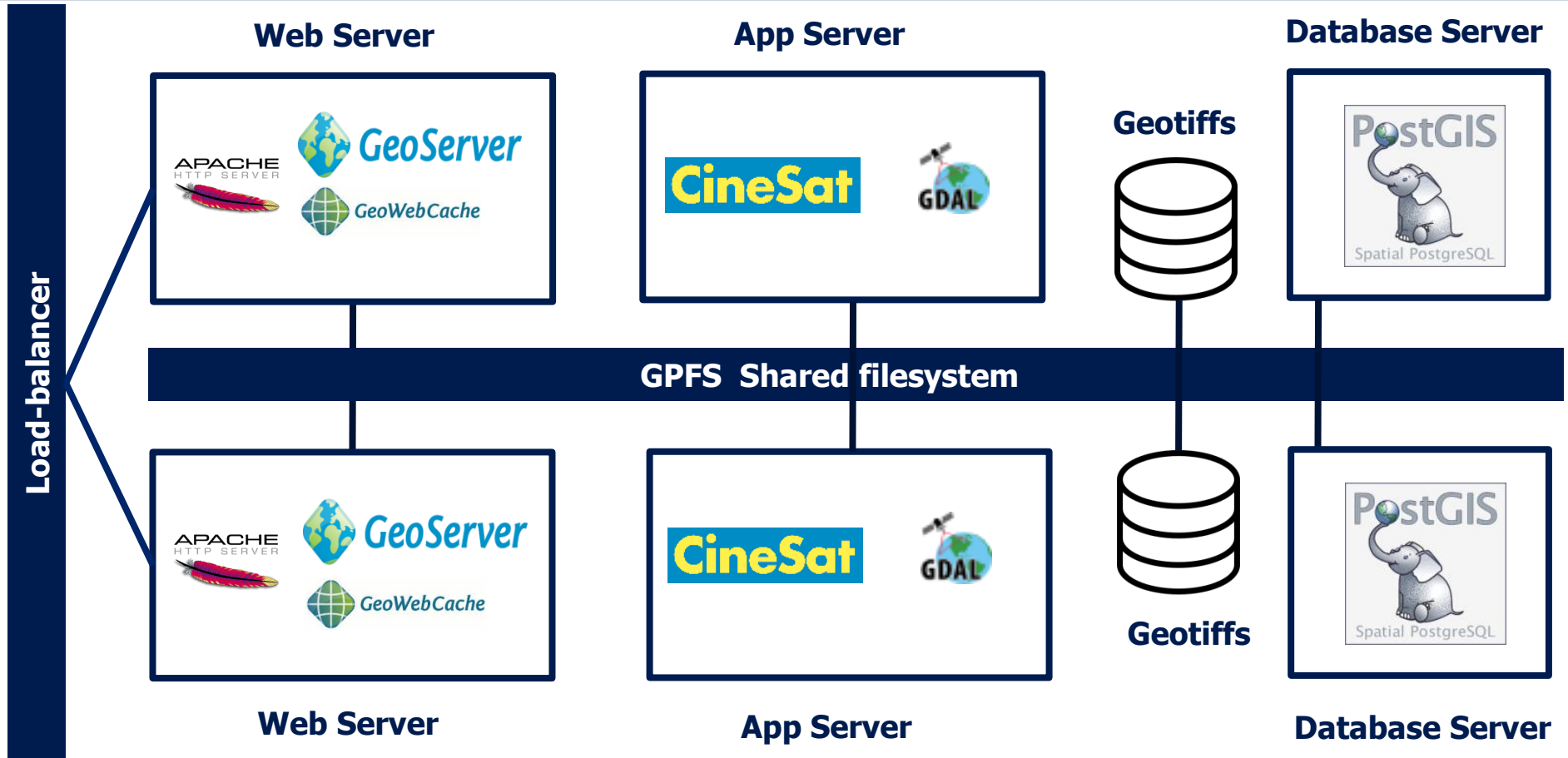
and



# EUMETView Solution Advantages

- Selected areas of interest are on-the-fly available
- Can offer access to data with WCS
  - WCS EO development by  **GeoSolutions** and sponsored by EUMETSAT and DLR  
Your one-stop-shop for geospatial open source software
- Standardised I/F which enables many Desktop or Web GIS applications to access the data

# EUMETView Current Deployment



200 concurrent users and 800 concurrent requests  
Keep up to 5 days of products



# GeoServer 2.6

- Support for multi-dimensional image mosaics
- Improved native NetCDF support
- Rest API for automating product ingestion
  - Add new slice time for a given layer
  - Delete “expired” images
- Deployment can be entirely automated
  - Allow to scale horizontally
  - Improve maintenance
- Open Source
  - Benefit the entire community
  - Increase the adoption/usage of EO Products and promote EUMETSAT products

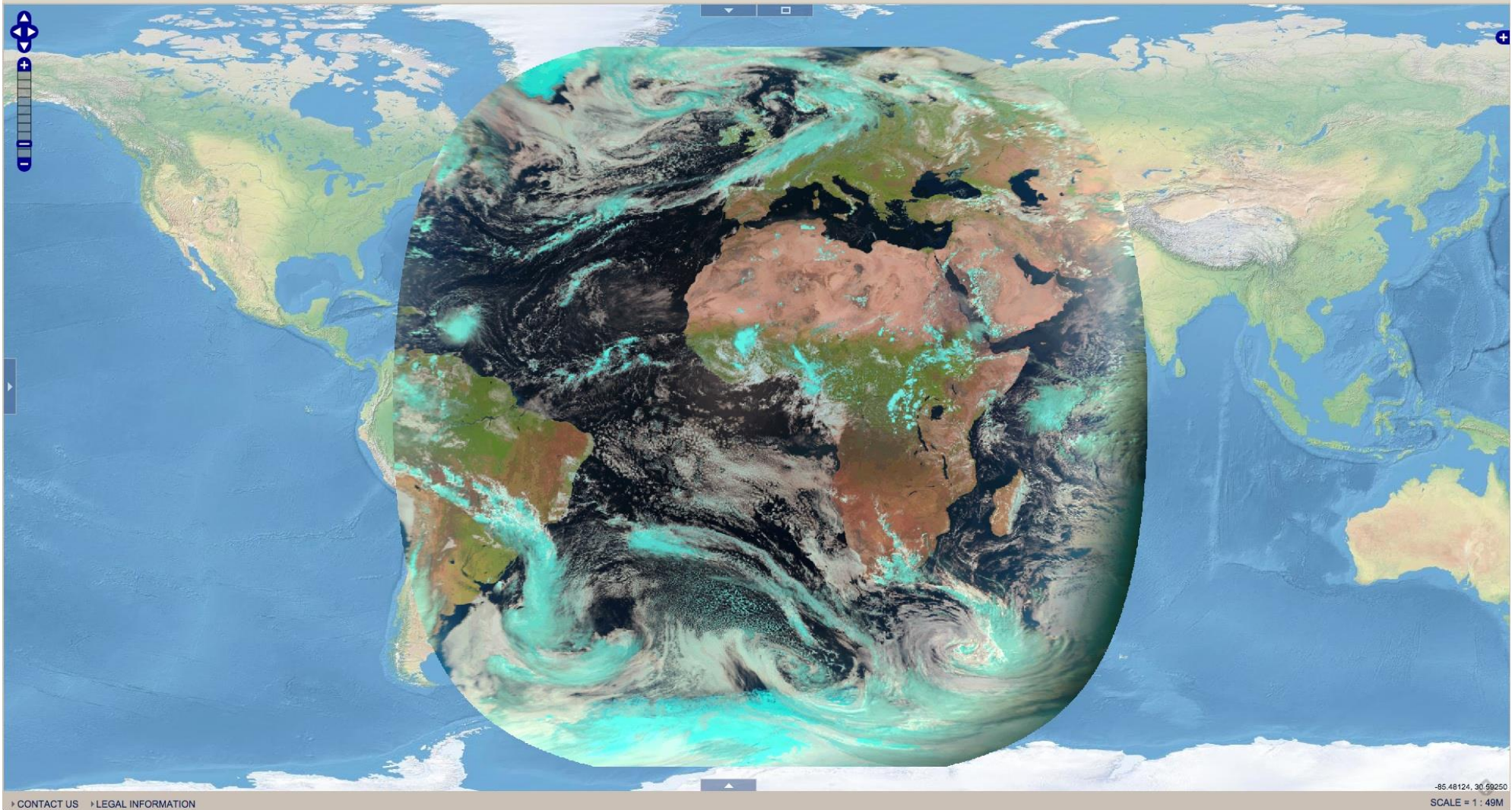
# EUMETView WMS Web App

- Simple user interface:
  - Select product and time
  - Create animation for user-defined time period
  - Download product images in different formats
  - Add data from external Web Map Services and overlay with EUMETSAT products
  - Products are linked to EUMETSAT's Product Navigator

# EUMETView Web App

 EUMETSAT

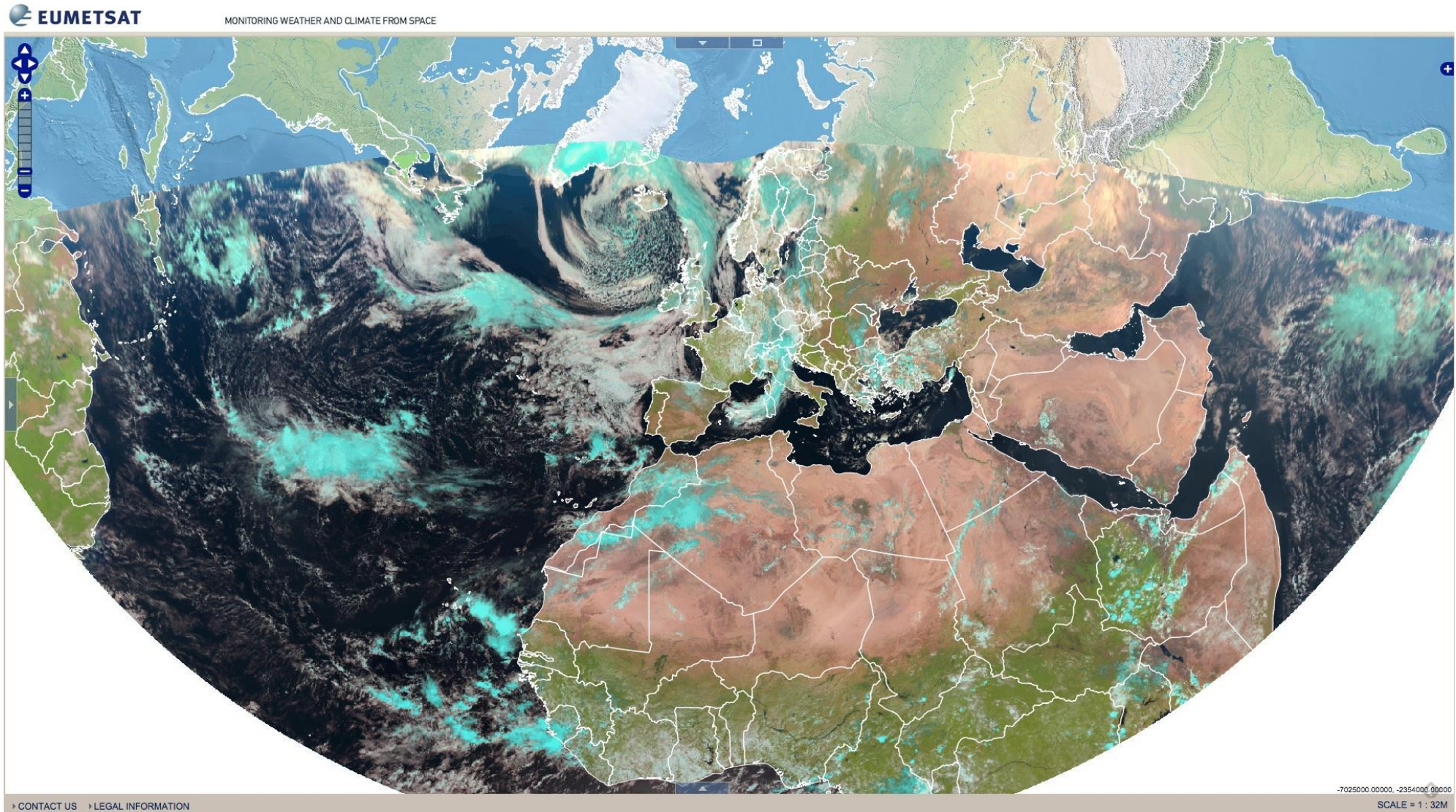
MONITORING WEATHER AND CLIMATE FROM SPACE



# EUMETView Web App - 1

The screenshot displays the EUMETSAT EUMETView Web App interface. At the top left is the EUMETSAT logo and the tagline "MONITORING WEATHER AND CLIMATE FROM SPACE". Below this, a navigation bar shows the date "2015-09-23" and time "15:30:00", along with a "Region:" dropdown and a play/pause button. The main area is a satellite image of Earth, showing North America, South America, and Africa. A vertical toolbar on the left side of the image includes a compass, a zoom-in (+) button, a zoom-out (-) button, and a vertical slider. On the right side, a "SELECTED PRODUCT: NATURAL COLOR" panel is open, showing settings for Format (JPEG), Extent (current map selected), Size (current map size selected), and Overlays (checked). At the bottom left, there are links for "CONTACT US" and "LEGAL INFORMATION". At the bottom right, the coordinates "52.19751, 8.1750" and the scale "SCALE = 1 : 49M" are displayed.

# EUMETView Web App - 2



# EUMETView Web App - 3

The screenshot displays the EUMETSAT EUMETView Web App interface. At the top left is the EUMETSAT logo and the tagline "MONITORING WEATHER AND CLIMATE FROM SPACE". The main area shows a satellite image of a storm system over the Atlantic Ocean, with a white cloud and a yellow/orange cloud band. A dialog box titled "ADD EXTERNAL WEB MAP SERVICE" is open, showing a URL and a list of layers.

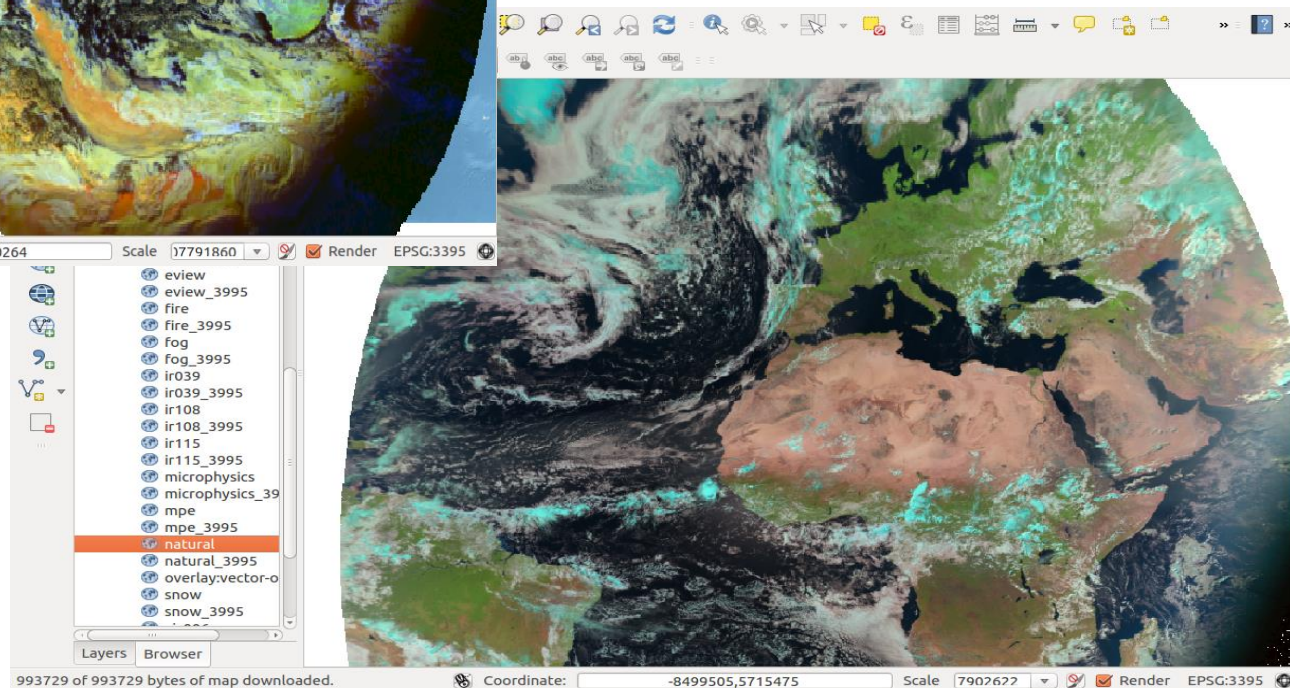
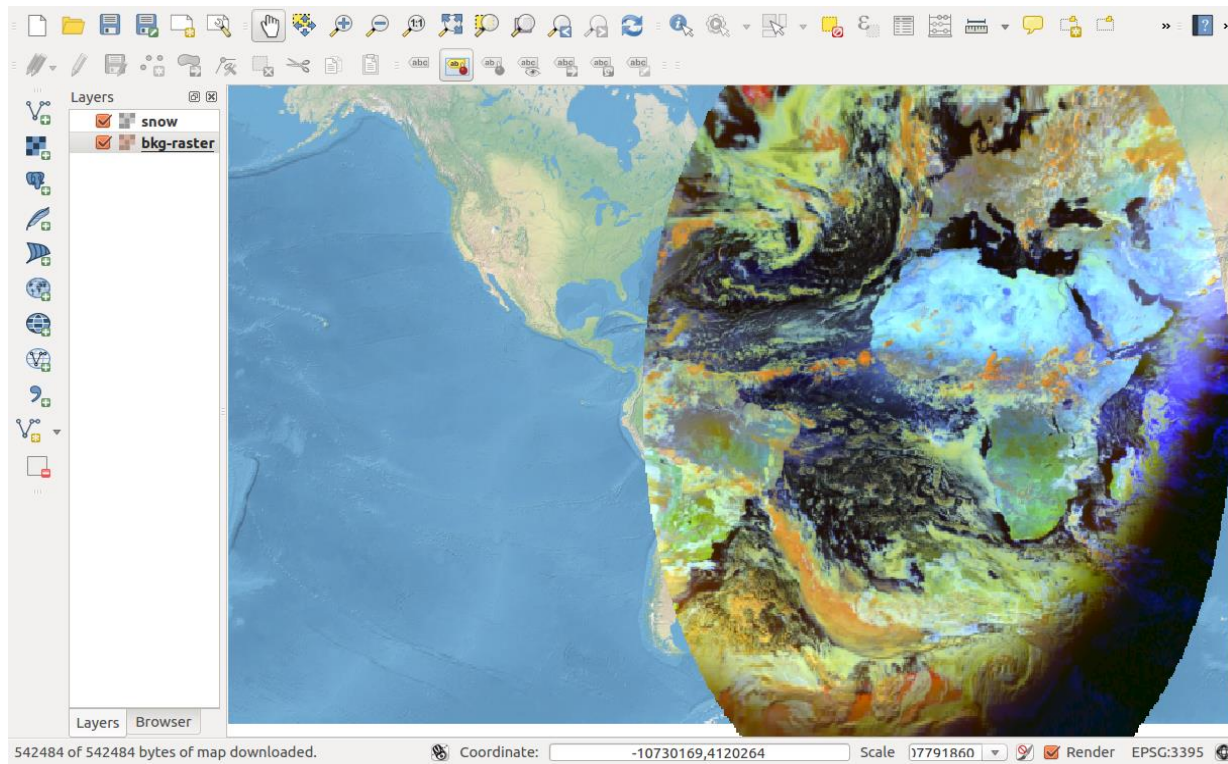
Time: 2015-09-23 15:30:00 Region: [dropdown]

**ADD EXTERNAL WEB MAP SERVICE**  
Enter service capabilities URL and press GO  
  
  
**Atlantic/Caribbean Storms**

Available layers	Selected layers
19	35
18	34
15	39
16	14
13	
37	

SCALE = 1 : 24M

# EUMETView WMS



# EUMETView Pilot

- Service opened to users since mid July 2015

<http://eumetview.eumetsat.int>

- User survey running until end of October

<http://bit.ly/eumetview>

- Comments via email: [ops@eumetsat.int](mailto:ops@eumetsat.int)



# EUMETView Plans (1)

- Survey outcome study [short-term]
- Operation [short-term]
  - Include quick fixes from Survey
  - Q2 2016
- Keep up to 10 days of products [short-term]
- Evolve the user interface
  - Improve usability
  - Improve access to the products

# EUMETView Plans (2)

- Provide access to the Data
  - WCS netcdf, WFS with shapefile for some products
- Integrate more products
  - Copernicus – Sentinel 3 products
- Keep the imagery for ever
  - Create an image archive
- Integrate all EUMETSAT web services
  - Discovery, Long Term Archive Access, Online Data Access
  - Improve the path for access data
- Add a Closed service for EUMETSAT member-states
  - Higher timeliness: near real-time image generation
  - Near real-time data access with WCS
  - If a clear mandate is given by the member-states

# Thank you

<http://eumetview.eumetsat.int>

User survey running until end of October

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Comments and Suggestions:  
ops@eumetsat.int