

Facilitating Data Access

2nd Asia-Oceania Meteorological Satellite Users' Conference Dec 2011



Mikael Rattenborg Director of Operations, EUMETSAT



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Overview of Presentation

- 1. EUMETSAT Data Access Principle
- 2. Earth Observation Portal:
 - Data Discovery Product Navigator
 - Single sign-on registration service
- **3. Key Delivery Mechanisms:**
 - EUMETCast near real-time delivery
 - Data Centre historical archived data
 - Web imagery Web Map Service



Part 1 : EUMETSAT Data Access Principle



EUMETSAT Data Access Principle

- EUMETSAT aims to promote the availability and use of near real-time and archived data for wider global user community
- This is achieved through the provision of:
 - an online catalogue using interoperable standards
 - a single entry point for service registration
 - freely available web imagery for quick looks and the lay user audience
 - delivery mechanisms using commercially available reception station equipment, and
 - the use of agreed standard data formats (e.g. WMO standards & community-specific de-facto standards)
- Use of international standards in data discovery and access allows for easier data exchange with other satellite operators and data providers







Earth Observation Portal (EOP)

- Provides EUMETSAT users with a single point of online access to <u>all</u> EUMETSAT data and dissemination services.
- This allows users to discover, search, order and subscribe to operational services:
 - Product Navigator since Nov 2008
 - EOP User Management single sign-on registration service Jan 2010
- Uses internationally recognised standards (ISO & OGC) and complying with the INSPIRE EU directive

EOP Usage: over 6000 registered & active EOP Users; over 300 unique users of the Product Navigator & User Management components are recorded per day.





Name and Address of the Owner, where the



Earth Observation Portal – Collections Catalogue

earch	Metadata details					
Simple search	Back to result name					
Extended search						
Browse by theme	Dataset					
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	Description Categorisation	Distribution Metadata				
	Categorisation					
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	Collection Type:	Dataset				
	Theme Reywords:	distribution:	EUMETSAT Data Centre, EUMETCast-Europe, EUMETCast			
		theme:	Atmospheric conditions, Observation, Satellite Data			
		societal benefit area:	Weather			
	Orbit Type:	GeoStationary				
	Satellite:	MSG				
	Satellite Description:	Meteosat Second Generation(Meteosat-8 - Meteosat-9)				
	Instrument:	SEVIRI (Type: OPTICAL)				
	Spatial Coverage:	Reduced Disk Northern Hemisphere				
	Content Description:	to be defined				
	Instrument Channel:	VIS 0.6 Spatial Resolution: 3.0				
		VIS 0.8 Spatial Resolution: 3.0				
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		IR 8.7 Spatial Resolution: 3.0				
		IR 9.7 Spatial Resolution: 3.0				

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Sea

http://navigator.eumetsat.int

Key Features:

Product Navigator provides metadata descriptions, data provider and data access information.

Includes all EUMETSAT products and thirdparty products on **EUMETCast.**

Uses open standards (e.g. OGC, Inspire) for catalogue interoperability with other organisations.

Version 2.0 **Released in Aug 2011**



Earth Observation Portal & GEOSS

GEO GROL	JP ON H OBSERVATIONS	GEO F	Portal Cesa Co				
HOME ABOUT	HELP SEARCH GEOSS		90 MAP VIEWER CONTACT				
Provide Feedback to GEO			Summary Full Description				
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BROWSE RESOURCES BY SOCIETAL BENEFIT AREAS	GED	Abstract	The Near Real Time Total Column (NTO) product provides information about total columns of two trace gases in the atmosphere: O3 (Ozone) and NO2 (Nitrogen Dioxide), as well as tropospheric NO2. The product is disseminated as one file containing the total column ozone, the total column NO2, and the tropospheric NO2. This product is not archived. For an archived version, please refer to the Offline Total Column Product.				
	GEOSS	Organisation Name	O3M SAF				
HEALIH		Distributor	O3M SAF				
ENERGY	o3msaf@fmi.fi	Modified	Date stamp: 2011-08-15				
CLIMATE							
WEATHER							
ECOSYSTEMS							
AGRICULTURE							
BIODIVERSITY							

Integration with GCI :

Product Navigator is a registered GEOSS Resource

Contents are routinely harvested by the GEO Web Portal

EUMETSAT & GEONETCast partner data can be discovered via the GEO Web Portal



Earth Observation Portal & GEOSS

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Search by words			Search!		
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Integration with GEONETCast:

Product Navigator provides metadata descriptions of all GEONETCast delivered data.

Disseminated via EUMETCast for use on local reception stations

Offline version allows for data discovery in Internet poor regions



Earth Observation Portal & WMO Information System

						Login
ta / Products	Matches: 59	First page Previous 20	1 - 20 of 5	9 Next 2	0 La	ist page
rch	Provider:					
ch by category	Product ID	Title	Product	Metadata	XML	Example
h for experts	urn:x-wmo:md:int.eumetsat::EO:EUM:DAT:F-X:GBLSIC	Global Sea Ice Concentration - DMSP	0	0	0	-
Search uct packages	urn:x-wmo:md:int.eumetsat::EO:EUM:DAT:JASON:GDR-SSHA	Geophysical Data Record - Sea Surface Height Anomaly - Jason-2	0	С	0	-
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	urn:x-wmo:md:int.eumetsat::EO:EUM:DAT:METOP:ASCSZR1B	ASCAT GDS L1 Sigma0 at 12.5 km Swath Grid - Metop	0	С	0	-
stration	urn:x-wmo:md:int.eumetsat::EO:EUM:DAT:METOP:AVHRRL1	AVHRR GDS Level 1 - Metop	0	C	С	-
	urn:x-wmo:md:int.eumetsat::EO:EUM:DAT:METOP:GOMEL1	GOME2 GDS Level 1B - Metop	0	0	0	-
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	urn:x-wmo:md:int.eumetsat::EO:EUM:DAT:MFG:HRIADC	HRI Level 1.5 Image Data - MFG - ADC	0	0	0	-
	urn:x-wmo:md:int.eumetsat::EO:EUM:DAT:MFG:MTP15-RSS	Rapid Scan HRI Level 1.5 Image Data - MFG	0	0	C	-
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	urn:x-wmo:md:int.eumetsat::EO_EUM_DAT_METEOSAT_ELW1 ADC	 Expanded Low-resolution Cloud Motion Winds MFG - ADC - Reprocessed 	0	C	0	-
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	urn:x-wmo:md:int.eumetsat::EO_EUM_DAT_METEOSAT_HRI- IODC	HRI Level 1.5 Image Data - MFG - Indian Ocean	C	C	0	-
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Integration with WIS:

As a DCPC EUMETSAT Product Navigator entries are being routinely exported to the DWD GISC



User Registration – Single sign-on



Earth Observation Portal – User Registration

C FUMETSAT	EARTH OBSERVATION PORTAL
E comersar	PRODUCT NAVIGATOR DATA CENTRE HELP
HOME (OPSQUARTER) > User Profile > Service Subscriptions > Licenses > Logout 2.3	Earth Observation Portal Welcome to the EUMETSAT Earth Observation Portal. Select from the available options to view/modify your profile, subscribe/unsubscribe to services, request decryption hardware and software, view your licence details and request new or view existing Data Centre orders.
	If you are registering for data and products for the first time, go to Edit/View Service Subscriptions to select your preferred service/s.
	AVAILABLE OPTIONS • Edit/View Service Subscriptions Select the near real-time data and products you wish to receive, your preferred delivery mechanism and update your data usage profile. • Edit/View User Profile Modify your contact details, including address details for delivery and invoicing purposes, phone, fax and email, etc.
	View/Extend Licenses View existing licence arrangements, request a licence renewal. • Edit/View Data Centre Order Status View existing licence renewal. View the status of current and previous orders and request new archived data. Note: This option is currently unavailable.
	Print Contact us Privacy Policy Copyright 2010 © EUMETSAT. All rights reserved. European Organization for the Exploitation of Meteorological Satellites
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Key Features:

Single sign-on provides access to all EUMETSAT Data and Products (NRT & archived data)

Provides quick and easy data licensing

Further enhancements will allow subscriptions to service announcements/ messages

Federated user management for interoperability with partner organisations





Name and Address of the Owner, Name of Street, or other



EUMETCast Data Delivery



EUMETCast Status end November 2011:

- 36 Data Providers
- 261 Different Data Collections
- 115 GB data disseminated per day

Key Features:

Off-the-shelf, commercially available DVB reception components

One-stop-shop many data streams via one station

Secure delivery – multicast to a specific user, or group of users

Handling many file formats, high and low volume data and supporting high-timeliness delivery requirements

Worldwide coverage through GEONETCast partnership



EUMETCast Global User Community

EUMETCast Users Worldwide as of September 2011





Data Centre – Archived Data Delivery

EUMETSAT Data Centre data ingestion and retrieval



Data Centre Status end November 2011:

- 1350 registered users
- 17,000 processed orders per month

Key Features:

Archive dating back to 1981

Catalogue viewed via Product Navigator

Access online via EO Portal and online data ordering and delivery

Integrated EUMETSAT Satellite Application Facilities (SAFs) metadata allowing central ordering

Over 680 Terabytes of data stored (Nov 2011)

Over 1.3 Petabytes of data retrieved annually

Commitment to long-term data preservation



Data Centre – Archived Data Delivery





Web Imagery - Web Map Service



Key Features:

Provides a simple view of EUMETSAT's data and product suite

- NRT imagery
- RGB Composites
- Visualised Products

WMS imagery available in GEOTIFF for use in GIS interfaces

Allows easy regional selection; overlay of products; choice of background

WMS images are discovered through the EOP - Product Navigator

OGC standards allow for easy exchange of imagery between WMS providers

Pilot WMS Service to start in early 2012. EUMETSAT



EUMETSAT

Monitoring weather and climate from space



Thank you for your attention!



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