Product Navigator Glossary

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1 INTRODUCTION

1.1 Purpose & Scope

This document is to be used as a reference by users of the EUMETSAT Product Navigator.

1.2 Document Structure

Section 1 Introduction

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2 PRODUCT NAVIGATOR GLOSSARY

2.1 Societal Benefit Area

Agriculture	Food supplies depend on trends in the natural environment, including weather and climate, freshwater supplies, soil moisture and other variables. Within the Agriculture SBA there is access to data resources covering areas such as land cover, land use, crop, global farming system, food security.
Biodiversity	Biological diversity encompasses all of the Earth's plants, animals and micro-organisms; the genetic variation within each species; and the diverse ecosystems in which living things form communities and interact with one another and with the air, water, and soil around them.
Climate	Global and regional resources to help in the understanding and evaluation of key indicators that define how our climate is changing.
Disasters	When disaster strikes, rapid access to data on land and ocean conditions, maps of transport links and hospitals, weather forecasts, and information on socio-economic variables can save uncounted lives. Within the Disasters SBA there are resources linked to emergency response, disaster warning, relief mobilization and tele-medicinal support, post-disaster damage assessment, reconstruction, and rehabilitation.
Ecosystems	Terrestrial, coastal and marine ecosystems provide essential socio-economic and environmental benefits. Ecosystems the world over, however, are under tremendous stress from rapid land-use change, pollution and the overexploitation of natural resources.
Energy	Data sets to help governments and companies manager energy resources more effectively.
Health	A comprehensive series of data sets that support prevention, early warning, research, health-care planning and delivery, and public alerts.
Water	Datasets that reflect the many different ways in which water plays a key role in many areas of the global ecosysytem.
Weather	Real-time resources providing access to global weather data and archival information.

Definitions from GEO

2.2 Category

Aerosol	Suspension of fine solid particles or liquid droplets in a gas, e.g smog, smoke and dust.
Analysis	Analysis is the best description we get for the atmosphere from running/operating a model. It is used too as a hindsight tool to test or calibrate other data sources.
Atmosphere	Products related to atmospheric conditions and chemistry
Cloud	Products identifying the various cloud types and cloud conditions
Fire	Products used for the detection/monitoring of fire and measuring radiant heat output from fires
Forecasts	A statement of prediction.
Humidity	Products measuring water vapour content within the atmosphere
Land	Products related to land, land-atmosphere interactions, and biospheric applications.
Level 1 Data	• Level 0: Raw data after restoration of the chronological data sequence for each instrument, i.e. after demultiplexing of the data by instrument, removal of any data overlap due to the data dump procedure and relevant quality checks. Raw instrument data information (telemetry packets) is maintained during this process. • Level 1a: Instrument data in full resolution with radiometric and geometric (i.e. Earth location) calibration computed and appended but not applied. • Level 1b: Calibrated, Earth located and quality controlled product, in the original pixel location, and packaged with needed ancillary, engineering and auxiliary data. • Level 1c: In case of the IASI spectra, level 1b data after application of the apodization function.
Marine	Products related to the ocean state, topography and interaction of the ocean with the atmosphere
Model	Model is an algorithm implemented in powerful computers to generate a forecast for the next days out of our current knowledge of the atmospheric state. Model is frequently used for short instead of model forecast, as in “the model gives precipitation in Germany tomorrow”.

Observation	In-situ (non-satellite) based measurement
Precipitation	Rain, sleet, hail, snow and other forms of water falling from the sky
Pressure	Products related to the measurement of atmospheric pressure
Radar Backscatter NRCS	Normalized radar cross section of the sea for backscatter
Radiation	Products related to atmospheric and Earth radiation measurement
Sea Ice	Products related to sea ice extent, type, thickness
Sea Surface Temperature	Measurement of ocean temperature
Snow and Ice	Products related to snow and ice on land or in the atmosphere
Soil Moisture	Water contained in the upper part of the soil mantle.
Temperature	The measure of the internal energy that a substance contains. This is the most measured quantity in the atmosphere.
Vegetation	Products related to vegetation coverage; structural property of a plant canopy and plant energy absorption capacity
Wave	Products measuring ocean wave height
Wind	Products measuring wind speed and/or direction

2.3 Product Providers

BDMS	Botswana Department of Meteorological Services, Botswana
CIMSS	Cooperative Institute for Meteorological Satellite Studies, USA
CM SAF	SAF on Climate Monitoring, Germany
CMA	China Meteorological Administration, China
CNES	Centre National d'Etudes Spatiales, France
CONAE	Nacional de Actividades Espaciales, Argentina
CSIR	The Council for Scientific and Industrial Research, South Africa
DWD	Deutscher Wetterdienst, Germany
ECMWF	European Centre for Medium-Range Weather Forecasts, UK
EUMETSAT	European Organisation for the Exploitation of Meteorological Satellites, Germany
ESA	European Space Agency
H-SAF	SAF on Support to Operational Hydrology and Water Management, Italy
IMN	Costa Rica Instituto Meteorologico Nacional / National Meteorological Institute, Costa Rica
INPE/CPTEC	National Institute for Space Research, Brazil
INTA	Instituto Nacional de Tecnologia Agropecuaria, Argentina
ISRO	National Remote Sensing Centre Indian Space Research Organisation, India
JMA	Japan Meteorological Agency, Japan
LSA SAF	SAF on Land Surface Analysis, Portugal
Met Office	Met Office, UK
Météo-France	Météo-France, France
NASA	National Aeronautic and Space Administration, USA
NASA SERVIR	SERVIR Regional Visualization and Monitoring System, Panama
NCDC	NOAA National Climatic Data Center (NCDC), USA

NOAA	National Oceanic and Atmospheric Administration, USA
NWC SAF	Support to Nowcasting and Very Short Range Forecasting, Spain
NWP SAF	SAF on Numerical Weather Prediction, UK
O3M SAF	SAF on Ozone and Atmospheric Chemistry Monitoring, Finland
OSI SAF	SAF on Ocean and Sea Ice, France
PML	NEODAAS, Remote Sensing Group, Plymouth Marine Laboratory, UK
RANET	University Corporation for Atmospheric Research (UCAR) Joint Office of Science Support (JOSS) International Extension and Public Alert Systems (IEPAS) Program (UCAR-JOSS-IEPAS)
ROM SAF	SAF on Radio-Occultation Meteorology, Denmark
SAWS	South African Weather Service, South Africa
TAMSAT	University of Reading, Meteorology Department, UK
UCT	Department of Oceanography, University of Cape Town, South Africa
UMD	U.S. Geological Survey, USA
USEPA	U.S. Environmental Protection Agency, USA
VITO	Vlaamse Instelling voor Technologisch Onderzoek, Belgium
WMO	World Meteorological Organization, Switzerland

2.4 Dissemination

CMACast	The CMACast system enables the redistribution of EUMETSAT data and products to all countries in the Asia-Pacific area.
Direct Dissemination	Direct Dissemination is the delivery of data, products and services to a user reception station, transmitted directly from Meteosat and Metop satellites.
EUMETCast	EUMETCast is EUMETSAT's primary dissemination mechanism for the near real-time delivery of satellite data and products generated by the EUMETSAT Application Ground Segment. EUMETCast also delivers a range of third-party products.
EUMETCast-Africa	EUMETCast for Africa
EUMETCast-Americas	EUMETCast for the Americas
EUMETCast-Europe	EUMETCast for Europe
EUMETSAT Data Centre	EUMETSAT's state-of-the-art archive serving all EUMETSAT satellite programmes.
EUMETSAT Image Gallery	Near-Realtime Imagery
FTP	FTP access to product data.
GEONETCast-Americas	GEONETCast is a global network of satellite-based data dissemination systems providing environmental data to a world-wide user community.
GTS	The Global Telecommunications System (GTS) was established by the World Meteorological Organization and is used by National Meteorological Services (NMS) throughout the world to receive, send and relay meteorological data and products.
Internet	Negating the need for satellite reception station equipment, internet delivery offers an affordable way to transfer smaller volumes of data and products.
SAF Archive & FTP	Satellite Application Facility Archiving and FTP access of product data.

2.5 Product Status

Demonstration	Products or software packages that are provided to users without any commitment on the quality or availability of the service and have been considered by the relevant Steering Group to be useful to be disseminated in order to enabling users to test the product and to provide feedback.
Development	Products or software packages that are in development and not yet available to users
Discontinued	Products or software packages that have been previously (pre-) operationally provided to users but are not (pre-) operational anymore and are considered by the relevant Steering Group as not useful for further dissemination.
Operational	Products or software packages with documented non-relevant limitations that largely satisfy the requirements applicable and/or have been considered by the relevant Steering Group mature enough for distribution to users.
Pre-operational	Products or software packages with documented limitations that are able to satisfy the majority of applicable requirements and/or have been considered by the relevant Steering Group suitable for distribution to users.
Superseded	Products or software packages that have been (pre-) operationally provided to users but are not (pre-) operational anymore because the information of same or superior quality and/or coverage is provided with another product and considered by the relevant Steering Group as not useful for being continuously provided to the users.

2.6 Satellite

Aqua	Aqua, Latin for water, is a NASA Earth Science satellite mission (Polar Satellite)
CBERS	China Brazil Earth Resources Satellite (Polar Satellite)
DMSP	Defense Meteorological Satellite Program (Polar Satellite)
ERS-	European Remote Sensing satellites (Polar Satellite)
FengYun 2	China's weather satellites - series 2 (Geostationary Satellite)
FengYun 3	China's weather satellites - series 3 (Polar Satellite)
GOES	Geostationary Operational Environmental Satellite (Geostationary Satellite)
Jason	The Ocean Surface Topography Mission (OSTM) is built around a series of 'Jason' satellites (named after the mythical Greek mariner) (Polar Satellite)
Landsat	Land Remote Sensing Satellite Program (Polar Satellite)
Metop	Metop (Polar Satellite)
MFG	Meteosat First Generation (Meteosat-2 - Meteosat-7) (Geostationary Satellite)
MSG	Meteosat Second Generation (Meteosat-8 - Meteosat-10) (Geostationary Satellite)
MTSAT-2	Multi-functional Transport Satellite series (Geostationary Satellite)
NOAA	National Oceanic and Atmospheric Administration environmental satellites (Polar Satellite)
Oceansat	Indian satellite designed for ocean research (Polar Satellite)
QuikSCAT	NASA's Quick Scatterometer (Polar Satellite)
SAC-C	Scientific Application Satellite-C (Polar Satellite)
SMOS	Soil Moisture and Ocean Salinity mission (Polar Satellite)
SPOT	Earth observation satellite (Polar Satellite)

Suomi NPP	The Suomi National Polar-orbiting Partnership (Polar Satellite)

2.7 Instrument

A-DCS	Advanced Data Collection System
AMSR-E	Advanced Microwave Scanning Radiometer - Earth Observing System
AMSU-A	Advanced Microwave Sounding Unit-A (a 15-channel radiometer for temperature soundings flown in polar orbit)
AMSU-B	Advanced Microwave Sounding Unit-B (a 15-channel radiometer for temperature soundings flown in polar orbit)
ASCAT	Advanced Scatterometer
ATMS	Advanced Technology Microwave Sounder
ATOVS	Advanced TIROS Operational Vertical Sounder (suite of sounding instruments including AMSU-A, AMSU-B and HIRS/3 flown in polar orbit on NOAA)
AURA-OMI	Aura’s Nadir-viewing wide-field-imaging spectrometer
AVHRR	Advanced Very High Resolution Radiometer (for visible and infrared imagery, flown in polar orbit)
CERES	The Clouds and the Earth's Radiant Energy System
CrIS	Cross-track Infrared Sounder
DIARAD/VIRGO	Differential Absolute Radiometer
ETM+	Enhanced Thematic Mapper Plus
GERB	Geostationary Earth Radiation Budget, an instrument on the Meteosat satellites.
GOES I-M Imager	Imaging radiometer
GOME2	Global Ozone Monitoring Experiment, an instrument on the Metop satellites.
GRAS	GNSS Receiver for Atmospheric Sounding, an instrument on the Metop satellites.
GVAR Imager	Infrared image data in GOES VARiable Format
High Resolution Camera	High Resolution Camera
HIRS	High Resolution Infrared Radiation Sounder

HRTC	OPTICAL
IASI	Infrared Atmospheric Sounding Interferometer, instrument on Metop
IR2	Infrared imagery
MHS	Microwave Humidity Sounder
MWHS	Microwave Humidity Sounder
MWTS	Microwave Temperature Sounder
MIRAS	Microwave Imaging Radiometer with Aperture Synthesis
MMRS	Multispectral Medium Resolution Scanner
MODIS	Moderate Resolution Imaging Spectroradiometer
MVIRI	Meteosat Visible and Infrared Imager
OSCAT	Oceansat-2 Scatterometer
POSEIDON	Positioning Ocean Solid Earth Ice Dynamics Orbiting Navigator (Single frequency solid state radar altimeter)
SBUV2	Solar Backscatter Ultraviolet Version 2
SEAWINDS	Specialized microwave radar that measures near-surface wind speed and direction under all weather and cloud conditions over Earth's oceans
SEM	Space Environmental Monitor
SEVIRI	Spinning Enhanced Visible and Infrared Imager, instrument on Meteosat
SBUV	Solar Backscatter UltraViolet Instrument
SSM/I	Special Sensor Microwave Imager
SSMIS	Special Sensor Microwave Imager/Sounder
VEGETATION 2	Very wide angle (2 250 km-wide swath) earth observation instrument offering a spatial resolution of 1 km and high radiometric resolution
VISSR	Stretched Visible and Infrared Spin Scan Radiometer