Top Of Canopy Reflectance, global, 10-daily, 1km resolution

The TOC Spectral reflectance refers to the portion of the incident energy reflected by the surface in a given spectral band and without atmospheric interferences. Because of the natural anisotropy of the land surface, reflectance depends on the illumination and viewing angular conditions. Therefore, to compare and use jointly successive observations, it is necessary to normalize the measurements into a same angular configuration. The resulting value is the normalized TOC reflectance.

Proposition de citation
European Commission Directorate-General Joint Research Centre. Top Of Canopy Reflectance, global, 10-daily, 1km resolution. http://land.copernicus.vgt.vito.be/geonetwork/srv/api/records/urn:cgls:global:tocr_v1_1km

Simple

Date (Creation)
2018-08-03

Edition
Version 1

Edition date
2018-08-18

Identifier
urn:cgls:global:tocr_v1_1km

Date (Revision)
2016-01-01

Other citation details
https://land.copernicus.eu/global/documents/toc-r/v1/pum

Purpose
This product is first designed to fit the requirements of the Global component of Land Service of the Copernicus programme. It can be also useful for all applications related to the environment monitoring.

Credit
TOC-R products were generated by the Global Land Service of Copernicus, the Earth Observation programme of the European Commission. The research leading to the current version of the product has received funding from various European Commission Research and Technical Development programs. The product is based on PROBA-V 1km data (copyright ESA, BELSPO and distribution by VITO).

Status
Completed

Principal investigator

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Organization website

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VITO NV website

Organization website

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Custodian

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Protocol
http://ies.jrc.ec.europa.eu

Name
EC DG-JRC Institute for Environment and Sustainability

Description
Organization website

Function
Information

Maintenance and update frequency
As needed

Update scope
Series

Name
netCDF

Version
4.2.1.1

Specification
Network Common Data Form

GEMET - INSPIRE themes, version 1.0 (Theme)

- Orthoimagery

GEMET - Concepts, version 2.1

- geophysical environment

Mots clés (Theme)

- biogeophysical , surface reflectance , normalized

Mots clés (Place)

- GLOBE

Mots clés (Temporal)

- Dekad , 10-daily

Use limitation

No limitations

Use constraints
Copyright

Access constraints
Other restrictions

Other constraints
(d) the confidentiality of commercial or industrial information, where such confidentiality is provided for by national or Community law to protect a legitimate economic interest, including the public interest in maintaining statistical confidentiality and tax secrecy.

Association Type
Part of seamless database

Initiative Type
Project

Association Type
Source

Initiative Type
Platform

Association Type
Source

Initiative Type
Sensor

Spatial representation type
Grid

Distance
0.00892857142857 http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/uom/ML_gmxUom.xml#deg

Metadata language
eng

Character set
UTF8

Topic category

- Imagery base maps earth cover
- Biota

80.00 N
-60.00 S
180.00 E
-180.00 W

Time period
10-daily composite with 30-day sliding window inputdekad1999-01-01T00:00:002018-09-15T23:59:59

Reference system identifier
EPSG Geodetic Parameter Dataset / EPSG:4326

Reference system identifier
World Geodetic System / WGS84

Number of dimensions
2

Dimension name
Row

Dimension size
15680

Resolution
0.00892857142857 deg

Dimension name
Column

Dimension size
40320

Resolution
0.00892857142857 deg

Cell geometry
Area

Transformation parameter availability
false

Checkpoint Availability
true

Checkpoint Description
Upperleft corner tiepoint

Point in Pixel

- Center

Distribution format

- netCDF (4.2.1.1)

  Specification
  Network Common Data Form

Distributor

Distributor

VITO NV
Boeretang 200 Mol 2400

Hours of service
Office hours, 7 days per week

Contact instructions
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Website
Data portal

Project portal

Fees
Free by ftp and EUMETCast; cost of medium by DvD or tape

Ordering instructions
Products can be downloaded online via HTTP (or FTP) or can be received through EUMETCast satellite reception in Europe, Africa and Latin-America. When ordering products from the online archive or subscribing to receive future products, users are informed via e-mail whenever the requested products are ready to be downloaded on the FTP server.

Units of distribution
Per product

OnLine resource
Copernicus Global Land Service

1. Search, download and custom order products from Catalogue and Ordering services

OnLine resource
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2. Subscribe to receive future products via e-mail

Units of distribution
Per product

OnLine resource
Copernicus Global Land Service

3. Register to receive products via EUMETCast

Hierarchy level
Series

Conformance result

Date (Publication)

2010-12-01

Explanation
https://land.copernicus.eu/global/documents/toc-r/v1/vr

Pass
1

Conformance result

Date (Publication)
2010-04-26

Explanation
See the referenced specification

Pass
true

Statement
The input data are the daily Top of the Atmosphere reflectances measured at 1km resolution. They are calibrated, the clouds and their shadows are removed, and they are atmospherically-corrected to get the Top Of the Canopy reflectances. Then, a kernel-driven model is inverted over the TOC reflectances acquired during 30 days and weighted with a Gaussian function with a maximum at the end of the period, in order to remove directional effects. The results of the inversion are used as normalized Top Of Canopy spectral reflectance values for the TOC-r product.

gmd:MD_Metadata

File identifier
urn:cgls:global:tocr_v1_1km _XML

Metadata language
English

Character set
UTF8

Hierarchy level
Series

Date stamp
2020-03-06T16:42:46

Metadata standard name
ISO19115

Metadata standard version
2003/Cor.1:2006

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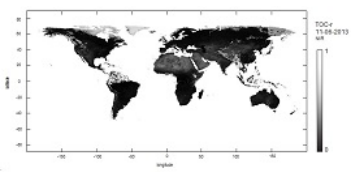
Copernicus Global Land website

Aperçus



Top of Canopy Reflectance

Fourni par

Partager

Ressources associées

Not available