



High Resolution Snow and Ice Monitoring: Wet/Dry Snow (raster 60m)

The Copernicus Wet/Dry Snow (WDS) product is generated in near real-time for the entire EEA38 and the United Kingdom, based on radar satellite data from the Sentinel-1 constellation. The product differentiates the snow state conditions within the snow mask defined by the FSCTOC information (snow fraction at the top of canopy - see the Copernicus Fractional Snow Cover product) with a spatial resolution of 60 m x 60 m. In other words, it provides a binary discrimination of wet and dry snow, identifying patchy snow or snow free areas.

The WDS product is distributed in raster files covering an area of 110 km by 110 km with a pixel size of 60 m by 60 m in UTM/WGS84 projection, which corresponds to the Sentinel-2 input L1C product tile. Each product is composed of two separate GeoTIFF files corresponding to the different layers of the product (the snow state classification -SSC- and the associated quality layer -QCSSC-) and a metadata file.

The WDS is one of the products of the pan-European High-Resolution Snow & Ice service (HR-S&I), which are provided at high spatial resolution (20 m x 20 m and 60 m x 60 m), from the Sentinel-2 and Sentinel-1 constellations data from September 1, 2016 onwards.

You can read more about the WDS product here: <https://land.copernicus.eu/en/products/snow/high-resolution-wet-dry-snow>.

Simple

Date (Creation)	2021-09-01				
Date (Publication)	2021-09-01				
Edition	01.00				
Citation identifier	copernicus_r_utm-wgs84_60_m_hrsi-wds_p_2016-now_v01_r00				
Citation identifier	DAT-244-en				
Point of contact	Organisation name	Individual name	Electronic mail address	Website	Role
	European Commission			https://commission.europa.eu	Owner
	Copernicus Land Monitoring Service		copernicus@eea.europa.eu	https://land.copernicus.eu	Custodian
	European Environment Agency		sdi@eea.europa.eu	http://www.eea.europa.eu	Publisher
	Copernicus Land Monitoring Service helpdesk		copernicus@eea.europa.eu	https://land.copernicus.eu/en/contact-service-helpdesk	Point of contact
Maintenance and update frequency	Continual				
GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"> Land cover 				
Keywords					
Continents, countries, sea regions of the world.	<ul style="list-style-type: none"> EEA38 (from 2020) United Kingdom 				
Keywords					
GEMET	<ul style="list-style-type: none"> ice land cover landscape alteration 				

	<ul style="list-style-type: none"> • monitoring • climate change impact • snow
Spatial scope	<ul style="list-style-type: none"> • European
EEA topics	<ul style="list-style-type: none"> • Land use
Temporal resolution	<ul style="list-style-type: none"> • Irregular
EEA Management Plan	<ul style="list-style-type: none"> • 2020 3.6.7
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	<p>The Copernicus component is governed by Regulation (EU) No 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU. Within the Copernicus component, a portfolio of land monitoring activities has been delegated by the European Union to the European Environment Agency (EEA) and the DG Joint Research Centre of the European Commission.</p> <p>The Copernicus land monitoring products and services are made available on a principle of full, open and free access, as established by the Commission Delegated Regulation (EU) No 1159/2013 of 12 July 2013.</p> <p>Free, full and open access to the products and services of the Copernicus Land Monitoring Service is made on the conditions that:</p> <ol style="list-style-type: none"> 1. When distributing or communicating Copernicus Land Monitoring Service products and services (data, software scripts, web services, user and methodological documentation and similar) to the public, users shall inform the public of the source of these products and services. 2. Where the Copernicus Land Monitoring Service products and services have been adapted or modified by the user, the user shall clearly state this. 3. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the European Union.
Spatial representation type	Grid
Distance	60 m
Language of dataset	English
Character set	UTF8
Topic category	<ul style="list-style-type: none"> • Environment • Imagery base maps earth cover • Climatology, meteorology, atmosphere



Begin date	2016-09-01
Coordinate reference system identifier	EPSG:32625
Coordinate reference system identifier	EPSG:32626
Coordinate reference system identifier	EPSG:32627
Coordinate reference system identifier	EPSG:32628
Coordinate reference system identifier	EPSG:32629
Coordinate reference system identifier	EPSG:32630
Coordinate reference system identifier	EPSG:32631
Coordinate reference system identifier	EPSG:32632
Coordinate reference system identifier	EPSG:32633
Coordinate reference system identifier	EPSG:32634
Coordinate reference system identifier	EPSG:32635
Coordinate reference system identifier	EPSG:32636
Coordinate reference system identifier	EPSG:32637
Coordinate reference system identifier	EPSG:32638
Distribution format	<ul style="list-style-type: none"> • GeoTIFF ()

OnLine resource	Protocol	Linkage	Name
	WWW:LINK-1.0-http--link	https://cryo.land.copernicus.eu/finder/	Cryo portal
	OGC:WMS	https://cryo.land.copernicus.eu/wms/WDS?service=WMS&request=GetCapabilities&version=1.3.0	
	WWW:LINK-1.0-http--link	https://www.wekeo.eu/	WEKEO portal
	WWW:LINK-1.0-http--link	https://cryo.land.copernicus.eu/resto/api/collections/HRSI/search.json	REST API
	WWW:LINK-1.0-http--link	https://land.copernicus.eu/en/technical-library/hrsi-snow-pum/@_@download/file	Product user manual
	WWW:LINK-1.0-http--link	https://land.copernicus.eu/en/technical-library/hrsi-snow-s1-atbd/@_@download/file	Algorithm Theoretical Basis Document
	WWW:LINK-1.0-http--link	https://wekeo-broker.apps.mercator.dpi.wekeo.eu/databroker/ui/	

	<p>WWW:LINK-1.0-http--link</p> <p>https://land.copernicus.eu/en/products/snow/high-resolution-wet-dry-snow#download</p>	<p>HDA API (Harmonized Data Access (WEkEO))</p> <p>Download (requires authentication)</p>
Hierarchy level	Dataset	

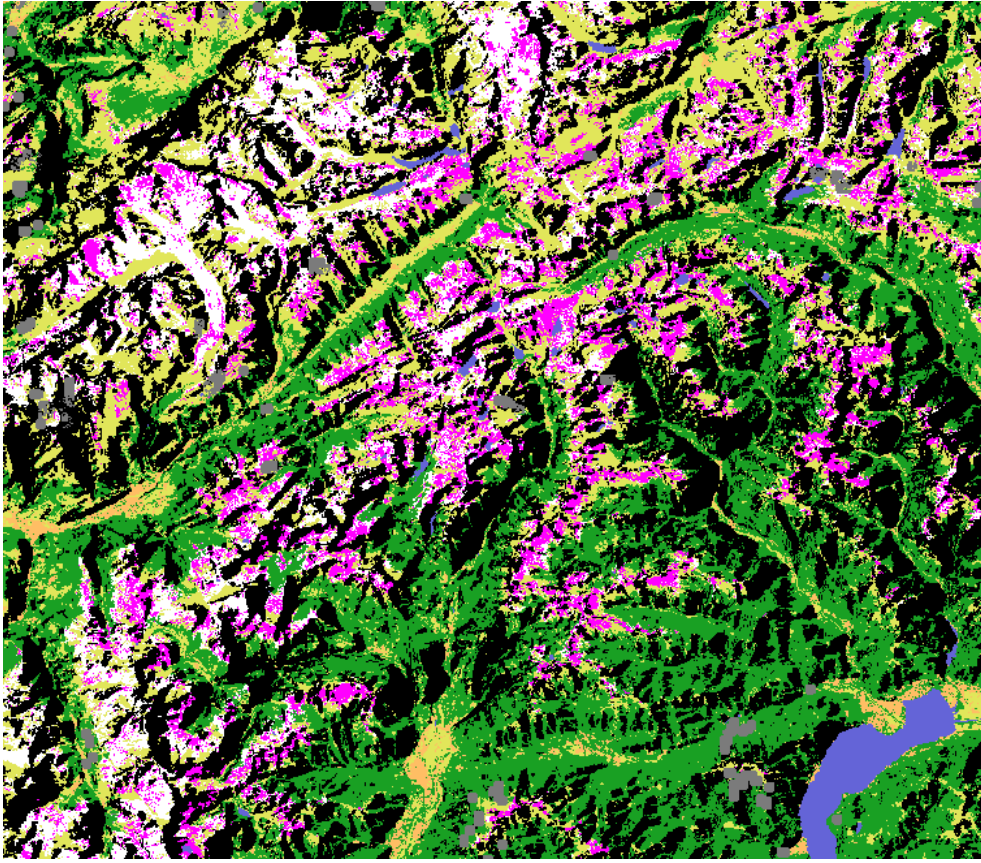
Conformance result

Title	Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services	
Date (Publication)	2010-12-08	
Explanation	See the referenced specification	
Statement	<p>The algorithm for WDS retrieval is fully described in the Algorithm Theoretical Basis Document:</p> <p>https://land.copernicus.eu/en/technical-library/hrsi-snow-s1-atbd/@.download/file. Its validation is described https://land.copernicus.eu/en/technical-library/hrsi-snow-qar-s1-s2/@.download/file.</p>	

Metadata

File identifier	add40e90-0175-49af-a641-361dda3c7e1d XML		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2024-02-06T16:46:15.187Z		
Metadata standard name	ISO 19115/19139		
Metadata standard version	1.0		
Metadata author	<p>Organisation name</p> <p>European Environment Agency</p>	<p>Individual name</p>	<p>Electronic mail address</p> <p>sdi@eea.europa.eu</p> <p>Website Role</p> <p>Point of contact</p>

Overviews



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