

Hierarchy	Metadata Name	Data Type	Obligation	Description	Source of Information or name of metadata element at WDC	Reference	Definition
<b>MD_Metadata</b>				<b>information describing the metadata file</b>		<b>ISO19115 B.2.1 (1)</b>	
	fileIdentifier	String	M	unique identifier for this metadata file, following internal file naming convention of WDC (e.g.: <a href="#">Mission.Sensor.Level.Specie.geoID.Processin.Level.Version.yyyymmdd.nc</a> )	EBAS.<station code>.<start date / time>.<revision date / time>.<component>.<matrix>.<period code>.<resolution code>.<data level>	ISO19115 B.2.1 (2)	unique identifier for this metadata file
	language	String	C	language used for documenting metadata (→WIS requires english "en")	en	ISO19115 B.2.1 (3)	language used for documenting metadata
	characterSet	CodeList B.5.10	C	full name of the character coding standard used for the metadata set (→WIS requires "utf-8")	utf8	ISO19115 B.2.1 (4)	full name of the character coding standard used for the metadata set
	parentIdentifier	String	C	file identifier of the metadata to which this metadata is a subset, following internal file naming convention of WDC (e.g.: <a href="#">Mission.Sensor.Level.Specie.geoID.Processin.Level.Version</a> )	not applicable	ISO19115 B.2.1 (5)	file identifier of the metadata to which this metadata is a subset
	hierarchyLevel	CodeList B.5.25	C	scope to which the metadata applies: (→WIS requires "dataset" or "series", where "series" describes a collection of single datasets)	dataset	ISO19115 B.2.1 (6)	scope to which the metadata applies
	hierarchyLevelName	String	C	name of the hierarchy levels for which the metadata is provided	not applicable	ISO19115 B.2.1 (7)	name of the hierarchy levels for which the metadata is provided
	dateStamp	Date (B.4.2)	M	date of metadata creation: yyyy-mm-ddThh:mm:ss (e.g.: 2012-05-20T09:45:00)	system date on file creation	ISO19115 B.2.1 (9)	date that the metadata was created
	metadataStandardName	String	O	name of the metadata standard used (including profile name) (e.g.: <a href="#">ISO19115 / WDC-RSAT Profile V1.0</a> )	ISO19115 / GAW-WDCA Profile	ISO19115 B.2.1 (10)	name of the metadata standard (including profile name) used
	metadataStandardVersion	String	O	version (profile) of the metadata standard used (e.g.: <a href="#">V1.0</a> )	V1.0.0	ISO19115 B.2.1 (11)	version (profile) of the metadata standard used
<b>L→ Contact information (MD_Metadata &gt; contact)</b>				<b>→contact details of party responsible for metadata information within WDC host organisation</b>		<b>ISO19115 B.2.1 (8)</b>	
<b>L→ CI_ResponsibleParty</b>			<b>M</b>			ISO19115 B.3.2.1 (374)	
	individualName	String	C	name of the responsible person within WDC host organisation: surname, given name, title separated by a delimiter	Fiebig, Markus, Dr.	ISO19115 B.3.2.1 (375)	name of the responsible person surname, given name, title separated by a delimiter
	organisationName	String	C	name of WDC host organisation	Norwegian Institute for Air Research	ISO19115 B.3.2.1 (376)	name of the responsible organisation
	positionName	String	C	role or position of the responsible person within WDC host organisation (function, division)	Senior Scientist, Dept. Atmospheric and Climate Research (ATMOS), Norwegian Institut	ISO19115 B.3.2.1 (377)	role or position of the responsible person
	RoleCode	CodeList B.5.5	M	function performed by the WDC host organisation (select from dropdown list)	custodian	ISO19115 B.3.2.1 (379)	function performed by the responsible party
<b>L→ CI_Contact</b>			<b>O</b>			ISO19115 B.3.2.2 (387)	
<b>L→CI_Address</b>			<b>O</b>	<b>→physical address of WDC host organisation</b>		ISO19115 B.3.2.2 (380)	
	deliveryPoint	String	O	street name and number	Instituttveien 18	ISO19115 B.3.2.2 (381)	address line for the location
	Address.city	String	O	city	Kjeller	ISO19115 B.3.2.2 (382)	city of the location
	administrativeArea	String	O	state, province		ISO19115 B.3.2.2 (383)	state, province of the location
	postalCode	String	O	ZIP or other postal code	2007	ISO19115 B.3.2.2 (384)	ZIP or other postal code
	country	String	O	country	Norway	ISO19115 B.3.2.2 (385)	country of the physical address
	electronicMailAddress	String	O	email address of the responsible organization or individual	<a href="mailto:Markus.Fiebig@nilu.no">Markus.Fiebig@nilu.no</a>	ISO19115 B.3.2.2 (386)	address of the electronic mailbox of the responsible organization or individual
<b>L→CI_Telephone</b>			<b>O</b>			ISO19115 B.3.2.7 (407)	
	voice	String	O	telephone number	+47 6389-8235	ISO19115 B.3.2.7 (408)	telephone number
	facsimile	String	O	telephone number of a facsimile machine	+47 6389-8050	ISO19115 B.3.2.7 (409)	telephone number of a facsimile machine
<b>L→CI_OnlineResource</b>			<b>C</b>			ISO19115 B.3.2.5 (396)	
	linkage	URL	C	web address of the WDC (URL) (e.g.: <a href="http://wdc.dlr.de">http://wdc.dlr.de</a> )	<a href="http://www.qaw-wdca.org">http://www.qaw-wdca.org</a>	ISO19115 B.3.2.5 (397)	location (address) for on-line access using Uniform Resource Locator address or similar addressing scheme such as <a href="http://www.statkart.no/isotc211">http://www.statkart.no/isotc211</a>
<b>L→Reference System Information (MD_Metadata &gt; referenceSystemInfo)</b>				<b>→description of the spatial and temporal reference systems</b>		<b>ISO19115 B.2.1 (13)</b>	
<b>L→ MD_ReferenceSystem</b>			<b>O</b>			ISO19115 B.2.7.3 (205)	
<b>L→ MD_Identifier</b>			<b>O</b>			ISO19115 B.2.7.3 (205)	
	code	String	C	alphanumeric identifier of the reference system (e.g.: <a href="#">WGS 84</a> )	WGS 84	ISO19115 B.2.7.3 (207)	alphanumeric value identifying an instance in the namespace
<b>L→CI_Citation</b>			<b>O</b>			ISO19115 B.3.2 (359)	
	title	String	C	name of reference system (e.g.: <a href="#">World Geodetic System</a> )	World Geodetic System	ISO19115 B.3.2.1 (360)	name by which the cited reference is known
<b>L→CI_Date</b>			<b>O</b>			ISO19115 B.3.2.4 (393)	
	date	Date	C	reference date of the reference system: yyyy-mm-dd		ISO19115 B.3.2.4 (394)	reference date for the cited resource

	dateType	CodeList B.5.2	C	event used for reference date (select from dropdown list)		ISO19115 B.3.2.4 (395)	event used for reference date
L→MD_Identifier							
	version	String	O	version of the reference system (e.g.: V1.0)		ISO19115 B.2.7.3 (205)	
			O			ISO19115 B.2.7.3 (208.2)	version identifier of namespace
L→Identification Information (MD_Metadata > identificationInfo)				→information used to identify the dataset referred to by this metadata file		ISO19115 B.2.1 (15)	
L→MD_Identification							
	abstract	String	M	short description of the dataset described (abstract) (e.g.: parameter, method, instrument, interval, site etc)	Station name, GAW ID, instrument type, data level, matrix, resolution code, component	ISO19115 B.2.2.1 (25)	brief narrative summary of the content of the resource
	status	CodeList B.5.23	O	status of the data/dataset (select from dropdown list)	onGoing / completed	ISO19115 B.2.2.1 (28)	status of the resource(s)
L→CI_Citation							
	title	String	M	name of the dataset/series referred to by this metadataset following the internal file naming convention of the WDC (e.g.: Mission.Sensor.Level.Specie.geoID.Processin Level.Version.TimePeriod.nc)	EBAS.<station code>.<start date / time>.<revision date / time>.<component>.<matrix>	ISO19115 B.3.2.1 (360)	name by which the cited reference is known
	edition	String	O	version of the dataset	version number	ISO19115 B.3.2.1 (363)	version of the cited resource
	editionDate	DateTime	O	date of the edition: yyyy-mm-ddThh-mm-ss	revision date	ISO19115 B.3.2.1 (364)	date of the edition
	identifier	String	O	value uniquely identifying an object within a namespace (e.g.: DOI of the dataset, if available)	dataset / version URL	ISO19115 B.3.2.1 (365)	value uniquely identifying an object within a namespace
L→CI_Date							
	date	Date B4.2	M	reference date of the dataset: yyyy-mm-ddThh-mm-ss	revision date	ISO19115 B.3.2.4 (394)	reference date for the cited resource
	dateType	CodeList B.5.2	M	event used for reference date (select from dropdown list)	revision	ISO19115 B.3.2.4 (395)	event used for reference date
L→CI_ResponsibleParty							
	individualName	String	C	name of the person responsible for the dataset: surname, given name, title, separated by a delimiter	dataset Originator	ISO19115 B.3.2.1 (375)	name of the responsible person surname, given name, title, separated by a delimiter
	organisationName	String	C	name of the organisation responsible for the dataset/data generation	Sponsoring organisation	ISO19115 B.3.2.1 (376)	name of the responsible organisation
	positionName	String	C	role or position of the person responsible for the dataset (function, division)	Originator contact details	ISO19115 B.3.2.1 (377)	role or position of the responsible person
	role	CodeList B.5.5	C	function performed by the organisation responsible for the dataset (select from dropdown list)	owner	ISO19115 B.3.2.1 (379)	function performed by the responsible party
L→CI_Contact							
L→CI_Address							
	deliveryPoint	String	O	street name and number	Sponsoring organisation address	ISO19115 B.3.2.2 (381)	address line for the location
	Address.city	String	O	city	Sponsoring organisation town	ISO19115 B.3.2.2 (382)	city of the location
	administrativeArea	String	O	state, province	not available	ISO19115 B.3.2.2 (383)	state, province of the location
	postalCode	String	O	ZIP or other postal code	Sponsoring organisation ZIP	ISO19115 B.3.2.2 (384)	ZIP or other postal code
	country	String	O	country	Sponsoring organisation country	ISO19115 B.3.2.2 (385)	country of the physical address
	electronicMailAddress	String	O	email address of the responsible organization or individual	Originator e-mail	ISO19115 B.3.2.2 (386)	address of the electronic mailbox of the responsible organization or individual
L→CI_Telephone							
	voice	String	O	telephone number	not available	ISO19115 B.3.2.7 (408)	telephone number
	facsimile	String	O	telephone number of a facsimile machine	not available	ISO19115 B.3.2.7 (409)	telephone number of a facsimile machine
L→CI_OnlineResource							
	linkage	URL	C	web address of the organisation responsible for the dataset (URL) (e.g.: http://meteoswiss.admin.ch)	not available	ISO19115 B.3.2.5 (397)	location (address) for on-line access using Uniform Resource Locator address or similar addressing scheme such as http://www.statkart.no/isotc211
L→MD_resourceConstraints							
L→MD_legalConstraints							
	accessConstraints	CodeList B.5.24	O	access constraints applied to assure the protection of data published by WDC, and any special restrictions or limitations on obtaining the data (select from dropdown list)	otherRestrictions	ISO19115 B.2.3 (70)	access constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations on obtaining the resource or metadata

	useConstraints	CodeList B.5.24	O	any special restrictions or limitations or warnings on using the data (select from dropdown list)	otherRestrictions	ISO19115 B.2.3 (71)	constraints applied to assure the protection of privacy or intellectual property, and any special restrictions or limitations or warnings on using the resource or metadata
	otherConstraints	String	C	other restrictions and legal prerequisites for accessing and using the resource or metadata	<a href="http://www.gaw-wdca.org/BrowseObtainData/tabid/2797/Default.aspx">http://www.gaw-wdca.org/BrowseObtainData/tabid/2797/Default.aspx</a>	ISO19115 B.2.3 (72)	other restrictions and legal prerequisites for accessing and using the resource or metadata
L→MD_Keywords			O	→keyword describing the dataset theme		ISO19115 B.2.2.3 (52)	
	keyword	String	C	keyword(s) describing the theme of the dataset (select keyword from WMO keyword list on <a href="http://www.wmo.int/pages/prog/www/metadata/WMO-keywords.html">http://www.wmo.int/pages/prog/www/metadata/WMO-keywords.html</a> )	Aerosol, Atmospheric, Measurement	ISO19115 B.2.2.3 (53)	provides category keywords, their type, and reference source
	type	CodeList B.5.17	O	subject matter used to group similar keywords (→WIS requires "theme")	theme	ISO19115 B.2.2.3 (54)	subject matter used to group similar keywords
L→CI_Citation			O	→information identifying the keyword source		ISO19115 B.3.2.1 (359)	
	title	String	O	name of the formally registered thesaurus or a similar authoritative source of keywords (→WIS requires "WMO keyword list, version 1.0")	WMO keyword list, version 1.0	ISO19115 B.3.2.1 (360)	name of the formally registered thesaurus or a similar authoritative source of keywords
L→CI_Date			O			ISO19115 B.3.2.4 (393)	
	date	Date	O	reference date for the WMO keyword list: yyyy-mm-dd	30.01.2004	ISO19115 B.3.2.4 (394)	reference date for the cited resource
	dateType	CodeList B.5.2	O	event used for reference date (select from dropdown list)		ISO19115 B.3.2.4 (395)	event used for reference date
L→CI_OnlineResource			C			ISO19115 B.3.2.5 (396)	
	linkage	URL	C	web address for keyword list (URL)	<a href="http://www.wmo.int/pages/prog/www/metadata/WMO-keywords.html">http://www.wmo.int/pages/prog/www/metadata/WMO-keywords.html</a>	ISO19115 B.3.2.5 (397)	location (address) for on-line access using Uniform Resource Locator address or similar addressing scheme such as <a href="http://www.statkart.no/isotc211">http://www.statkart.no/isotc211</a>
L→MD_DataIdentification			M	→spatial and temporal information of the data generation		ISO19115 B.2.2.1 (36)	
	spatialRepresentationType	CodeList B.5.26	O	method used to spatially represent geographic information of the dataset		ISO19115 B.2.2.1 (37)	method used to spatially represent geographic information
	language	String	M	language used within the dataset (→WIS requires english "en")	en	ISO19115 B.2.2.1 (39)	language used within the dataset
	characterSet	CodeList B.5.10	C	full name of the character coding standard used for the dataset (select from the dropdown list) (→WIS requires "utf-8")	utf8	ISO19115 B.2.2.1 (40)	full name of the character coding standard used for the dataset
	topicCategory	CodeList B.5.27	C	main theme(s) of the dataset (select from dropdown list)	climatologyMeteorologyAtmosphere	ISO19115 B.2.2.1 (41)	main theme(s) of the dataset
L→EX_Extent			C	→geographical information of the data generation site		ISO19115 B.3.1.1 (334)	
	description	String	C	description of spatial and temporal extent for the dataset (e.g.: general size of bounding box, temporal period covered etc.)	time series of point measurements at surface	ISO19115 B.3.1.1 (335)	spatial and temporal extent for the referring object
L→EX_GeographicExtent			O			ISO19115 B.3.1.2 (339)	
L→geographicElement			C			ISO19115 B.3.1.2 (336)	
L→EX_GeographicDescription			C			ISO19115 B.3.1.2 (348)	
L→geographicIdentifier			M			ISO19115 B.3.1.2 (349)	
L→MD_Identifier			C			ISO19115 B.2.7.3 (205)	
	code	String	C	WMO-region (e.g.: "VI - Europe")	Station WMO region	ISO19115 B.2.7.3 (207)	alphanumeric value identifying an instance in the namespace
	code	String	C	country the measurement site is located in (in english)	retrieved from EBAS station code	ISO19115 B.2.7.3 (207)	alphanumeric value identifying an instance in the namespace
	code	String	C	name of the measurement site (station name)	Station name	ISO19115 B.2.7.3 (207)	alphanumeric value identifying an instance in the namespace
L→EX_GeographicBoundingBox			C	→geographical coordinates of bounding box		ISO19115 B.3.1.2 (343)	
	westBoundLongitude	Decimal	C	western-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive east)	Station longitude	ISO19115 B.3.1.2 (344)	western-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive east)
	eastBoundLongitude	Decimal	C	eastern-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive east)	Station longitude	ISO19115 B.3.1.2 (345)	eastern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive east)

	southBoundLatitude	Decimal	C	southern-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive north)	Station latitude	ISO19115 B.3.1.2 (346)	southern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive north)
	northBoundLatitude	Decimal	C	northern-most coordinate of the limit of the dataset extent (bounding box), expressed in longitude in decimal degrees (positive north)	Station latitude	ISO19115 B.3.1.2 (347)	northern-most coordinate of the limit of the dataset extent, expressed in longitude in decimal degrees (positive north)
L→EX_TemporalExtent			C	→temporal information on the content of the dataset		ISO19115 B.3.1.3 (350)	
	extent	Class	C	ISO19108		ISO19115 B.3.1.3 (351)	temporal component of the extent of the referring object (TM_Primitive)
	gml:TimePeriod	Class	O	ISO8601		ISO19108	date and time for the content of the dataset
	gml:TimePeriodBegin	Date, B.4.5	O	date and time of period begin for the content of the dataset: yyyy-mm-ddThh-mm-ss	dataset start time	ISO8601	date and time for the content of the dataset
	gml:TimePeriodEnd	Date, B.4.5	O	date and time of period end for the content of the dataset: yyyy-mm-ddThh-mm-ss	dataset end time	ISO8601	date and time for the content of the dataset
	gml:TimePeriod.factor	Integer	O			ISO8601	
	gml:TimePeriod.radix	Integer	O			ISO8601	
	gml:TimePeriod.unit	Code	O	interval unit of measurement (e.g.: month, day, hour etc.)	dataset resolution code	ISO8601	
L→EX_VerticalExtent			C	→vertical information of instrument		ISO19115 B.3.1.4 (354)	
	minimumValue	Real	C	lowest vertical extent contained in the dataset (altitude of the instrument)	station altitude + height agl	ISO19115 B.3.1.4 (355)	lowest vertical extent contained in the dataset
	maximumValue	Real	C	highest vertical extent contained in the dataset (reach of instrument)	station altitude + height agl	ISO19115 B.3.1.4 (356)	highest vertical extent contained in the dataset
	unitOfMeasure	String	C	unit of measure (→WIS requires "m above sea level")	m above sea level	ISO19115 B.3.1.4 (357)	UnitOfMeasure
	VerticalCRS	Index	O		not applicable	ISO19136, ISO19139	C3: vertical Reference system for the dataset
	VerticalCRS	Class	O		not applicable	ISO19136, ISO19139	provides information about the vertical coordinate reference system to which the maximum and minimum elevation values are measured.
	VerticalCRS	Description	O		not applicable	ISO19136, ISO19139	
	VerticalCRS	DescriptionRef	O		not applicable	ISO19136, ISO19139	
	VerticalCRS	Identifier	O		not applicable	ISO19136, ISO19139	
	VerticalCRS	Scope	O		not applicable	ISO19136, ISO19139	
	VerticalCRS	VerticalCS	O		not applicable	ISO19136, ISO19139	
	VerticalCRS	VerticalDatum	O		not applicable	ISO19136, ISO19139	
L→Content Information (MD_Metadate > contentInfo)						ISO19115 B.2.1 (16)	
L→MD_CoverageDescription			O			ISO19115 B.2.8.1 (239)	
	attributeDescription	RecordType	C	parameter name	component name	ISO19115 B.2.8.1 (240)	description of the attribute described by the measurement value
	contentType	CodeList B5.12	C	type of information represented by the cell value (select from dropdown list)	physicalMeasurement	ISO19115 B.2.8.1 (241)	type of information represented by the cell value
L→Distribution Information (MD_Metadate > distributionInfo)						ISO19115 B.2.1 (17)	
L→MD_Distribution			O			ISO19115 B.2.10.1 (270)	
L→MD_Format			O			ISO19115 B.2.10.4 (284)	
	name	String	C	name of the data transfer format (e.g.: netcdf, hdf, ascii etc.)	NASA Ames 1001	ISO19115 B.2.10.4 (285)	name of the data transfer format
	version	String	C	version number of the transfer format	EBAS_1.1	ISO19115 B.2.10.4 (286)	version of the format (data, number, etc)
L→MD_FormatDigitalTransferOptions			O			ISO19115 B.2.10.2 (274)	
	transferSize	Real	O	estimated size of a unit in the specified transfer format, expressed in megabytes. The transfersize is > 0.0	15	ISO19115 B.2.10.2 (276)	estimated size of a unit in the specified transfer format, expressed in megabytes. The transfersize is > 0.0
L→CI_OnlineResource			O			ISO19115 B.3.2.5 (396)	
	linkage	URL	O	link to the data file (URL) (e.g.: <a href="http://ebas.nilu.no/Pages/DataSetList.aspx?key=5CDED20FD7374D4982F41B0097B604E8">http://ebas.nilu.no/Pages/DataSetList.aspx?key=5CDED20FD7374D4982F41B0097B604E8</a> )	URL, varies with dataset	ISO19115 B.3.2.5 (397)	location (address) for on-line access using Uniform Resource Locator address or similar addressing scheme such as <a href="http://www.statkart.no/isotc211">http://www.statkart.no/isotc211</a>
	protocol	String	O	connection protocol to be used	http	ISO19115 B.3.2.5 (398)	connection protocol to be used
	description	String	O	detailed text description of what the online database is/does	Web-interface to relational data base.	ISO19115 B.3.2.5 (401)	detailed text description of what the online resource is/does
	function	CodeList B.5.3	O	code for function performed by the online database (select from dropdown list)	download	ISO19115 B.3.2.5 (402)	code for function performed by the online resource
L→Data Quality Information (MD_Metadate > dataQualityInfo)						ISO19115 B.2.1 (18)	
L→DQ_DataQuality			O			ISO19115 B.2.4.1 (78)	
L→DQ_Scope			C			ISO19115 B.2.4.5 (138)	

	level	CodeList B.5.25	C	scope to which the metadata applies: (→WIS requires "dataset" or "series", where "series" describes a collection of single datasets)	dataset	ISO19115 B.2.4.5 (139)	hierarchical level of the data specified by scope
↳ LI_Lineage							
	statement	String	C	general explanation of the data producer's knowledge about the lineage of a dataset (e.g.: general statement on data correction, quality control etc.)	Data collected according to instrument specific standard operating procedures, checked on import into data base.	ISO19115 B.2.4.2.1 (83)	general explanation of the data producer's knowledge about the lineage of a dataset
↳ LI_ProcessStep							
	description	String	C	description of the correction/quality control measures, including related parameters or tolerances (i.e.: description of QA/QC procedures used in the validation of the data)	Regularly calibrated by instrument operator, manually quality assured by instrument operator, boundary checked by data centre, outlier check by data centre.	ISO19115 B.2.4.2.2 (87)	description of the event, including related parameters or tolerances
↳ Maintenance Information (MD_Metadata > metadataMaintenance)							
↳ MD_MaintenanceInformation							
	maintenanceAndUpdateFrequency	CodeList B.5.18	C	frequency with which changes and additions are made to the dataset after the initial dataset is completed	generated from period code	ISO19115 B.2.5.1 (143)	frequency with which changes and additions are made to the resource after the initial resource is completed