Item class GeodeticCRS

Name ETRF2005 - LatLon

Item status VALID Identifier 279

Alias European Terrestrial Reference Frame 2005

Information source Title Memo: Specifications for reference frame fixing

in the analysis of a EUREF GPS campaign

(version 8)

Author C. Boucher, Z. Altamimi

Publisher Institute National de l'Information Geographique

et Forestiere (IGN), Laboratoire de Recherche en

Geodesie (LAREG)

Publication date 2011-05-18

Edition date

Information source Title EUREF Technical Note 1: Relationship and

Transformation between the International and the

European Terrestrial Reference Systems

Author Z. Altamimi

Publisher Institut National de l'Information Géographique et

Forestière (IGN), France

Publication date 2018-06-28

Series/Journal name IERS Technical Note

Issue identification 1.0

Information source Title ETRS89 realization: Current status, ETRF2005

and Future Development

Author Z. Altamimi Publication date 2008-06-17

Edition date

Data source ISO Geodetic Registry

Remarks The EUREF Technical Working Group (TWG) recommends not to use

the ETRF2005 and rather to adopt the ETRF2000 as a conventional

frame of the ETRS89 system.

Scope Spatial referencing

Datum European Terrestrial Reference Frame 2005

Coordinate System Ellipsoidal 2D CS. Axes: latitude, longitude. Orientations: north, east.

UoM: degree

#### Extent

Europe - onshore and offshore: Albania,
Andorra, Austria, Belgium, Bosnia and
Herzegovina, Bulgaria, Croatia, Cyprus,
Czech Republic, Denmark, Estonia, Faroe
Islands, Finland, France, Germany, Gibraltar,
Greece, Hungary, Ireland, Italy, Latvia,
Liechtenstein, Lithuania, Luxembourg,
Macedonia, Malta, Monaco, Montenegro,
Netherlands, Norway including Svalbard and
Jan Mayen, Poland, Portugal, Romania, San
Marino, Serbia, Slovakia, Slovenia, Spain,
Sweden, Switzerland, United Kingdom (UK)

	including Channel Islands and Isle of Man, Vatican City State.	
Geographic Bounding Box	West-bound longitude	-16.1
	North-bound latitude	84.17
	East-bound longitude	39.65
	South-bound latitude	32.88

Item class GeodeticDatum

Name European Terrestrial Reference Frame 2005

Item statusVALIDIdentifier100

Alias ETRF2005

Information source Title EUREF Technical Note 1: Relationship and

Transformation between the International and the

European Terrestrial Reference Systems

Author Z. Altamimi

Publisher Institut National de l'Information Géographique et

Forestière (IGN), France

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Geodesie (LAREG)

Publication date 2011-05-18

Edition date

Data source ISO Geodetic Registry

Remarks The EUREF Technical Working Group (TWG) recommends not to use

the ETRF2005 and rather to adopt the ETRF2000 as a conventional

frame of the ETRS89 system.

Anchor definition Coincides with ITRF2005 in orientation and scale at epoch 1989.0

realigned to ITRF89 at epoch 1989.0 using 3 translations and is fixed to the stable part of the Eurasian tectonic plate through 3 rotation rates derived from the ITRF2005 velocity field, representing the Eurasian

plate's angular velocity about its Euler pole.

Coordinate Reference Epoch 2000.0

Scope Spatial referencing

Ellipsoid GRS 1980
Prime Meridian Greenwich

### Extent

Europe - onshore and offshore: Albania,
Andorra, Austria, Belgium, Bosnia and
Herzegovina, Bulgaria, Croatia, Cyprus,
Czech Republic, Denmark, Estonia, Faroe
Islands, Finland, France, Germany, Gibraltar,
Greece, Hungary, Ireland, Italy, Latvia,
Liechtenstein, Lithuania, Luxembourg,
Macedonia, Malta, Monaco, Montenegro,

Netherlands, Norway including Svalbard and Jan Mayen, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom (UK) including Channel Islands and Isle of Man, Vatican City State.	
-16.1	
84.17	
39.65	
32.88	

Item class Ellipsoid

Name GRS 1980

Item status VALID Identifier 27

Alias Geodetic Reference System 1980

Alias GRS1980
Alias IAG GRS80

Alias International 1979

Alias GRS80

Information source Title Geodetic Reference System 1980

Author H. Moritz

Publisher Springer International Publishing

Publication date 2003-03

Series/Journal name Journal of Geodesy Issue identification Volume 74, No. 1

Page 128–162

Information source Title Geodetic Reference System 1980

Author H. Moritz

Publisher International Association of Geodesy

Publication date 1984

Series/Journal name Bulletin Geodesique Issue identification Volume 58, No. 3

Page 395-405

Data source ISO Geodetic Registry

Remarks Adopted by IUGG 1979 Canberra. Inverse flattening is derived from

geocentric gravitational constant GM = 3986005e8 m\*m\*m/s/s, dynamic form factor J2 = 108263e-8 and Earth's angular velocity =

7292115e-11 rad/s.

Semi-major axis 6378137.0 m
Inverse flattening 298.257222101 m

Item class PrimeMeridian

Name Greenwich

Item statusVALIDIdentifier25

Alias Zero meridian

Information source Title Why the Greenwich meridian moved

Author S. Malys, J.H. Seago, N.K. Pavlis, P.K.

Seidelmann, G.H. Kaplan

Publisher Springer International Publishing

Publication date 2015-12

Series/Journal name Journal of Geodesy Issue identification Volume 89, No. 12

Page 1263–1272

Information source Title IERS Conventions (2010)

Author G. Petit, B.J. Luzum (eds)

Publisher Verlag des Bundesamts fur Kartographie und

Geodasie

Publication date 2010

Edition date

Series/Journal name IERS Technical Notes

Issue identification 36.0

Other citation details ISSN: 1019-4568

Data source ISO Geodetic Registry

Greenwich longitude 0.0 °

Item class EllipsoidalCS

Name Ellipsoidal 2D CS. Axes: latitude, longitude.

Orientations: north, east. UoM: degree

**VALID** Item status

Identifier 43

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

**Author** International Organization for Standardization

(ISO)

International Organization for Standardization Publisher

(ISO)

Publication date 2007-07-01 Edition Second Edition Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Remarks Used in geographic 2D coordinate reference systems. Coordinates

> referenced to this CS are in degrees. Any degree representation (e.g. DMSH, decimal, etc.) may be used but that used must be declared for

the user by the supplier of data.

#### Axes

Item class CoordinateSystemAxis

Name Geodetic latitude

**VALID** Item status Identifier 38

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

**Author** International Organization for Standardization

(ISO)

International Organization for Standardization Publisher

(ISO)

2007-07-01 Publication date Edition Second Edition Series/Journal name International Standard Issue identification ISO 19111:2007

ISO Geodetic Registry

Data source

Remarks Used in geographic 2D and geographic 3D coordinate reference

systems.

Abbreviation Lat Direction north

Unit degree (supplier to define representation)

CoordinateSystemAxis Item class

Name **Geodetic longitude** 

Item status **VALID** Identifier 34

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

Author International Organization for Standardization

(ISO)

Publisher International Organization for Standardization

(ISO)

Publication date 2007-07-01

Edition Second Edition

Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Remarks Used in geographic 2D and geographic 3D coordinate reference

systems.

Abbreviation Lon
Direction east

Unit degree (supplier to define representation)