ISO Geodetic Registry

Item class GeodeticDatum

Name International Terrestrial Reference Frame 1989

Item statusVALIDIdentifier192AliasITRF 89

Alias IERS Terrestrial Reference Frame 1989

Alias ITRF89

Information source Title ITRF 89 and other realizations of the IERS

Terrestrial Reference System for 1989

Author C. Boucher, Z. Altamimi

Publisher Central Bureau of IERS - Observatoire de Paris,

61 avenue de l'Observatoire, 75014 Paris, France

Publication date 1991-04-01

Edition date

Series/Journal name IERS Technical Notes

Issue identification 6.0

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

Remarks Replaces ITRF88. Replaced by ITRF90. This is a purely Cartesian

reference frame with no ellipsoid defined. GRS80 is the ellipsoid

recommended by the IAG and IERS.

Anchor definition Realisation of the IERS Terrestrial Reference System (ITRS) at

reference epoch 1988.0. Origin and scale are defined by an average of selected SLR solutions. Orientation is defined such that no global rotation exists with respect to ITRF88. Time evolution is defined by the AMO-2 plate motion model of Minster and Jordan (1978); no global velocity field was estimated for ITRF88. The AM0-2 model is used to estimate positions at other epochs. Datum defined by a set of 3 dimensional Cartesian station coordinates given by the citations.

Release date 1991-04-01 Coordinate Reference Epoch 1988.0

Scope Spatial referencing

Ellipsoid GRS 1980

Prime Meridian Greenwich

Extent

Description

Geographic Bounding Box
West-bound longitude
North-bound latitude
East-bound longitude
South-bound latitude
90.0
180.0
90.0

ISO Geodetic Registry

Item class Ellipsoid

Name GRS 1980

Item statusVALIDIdentifier27

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

ISO Geodetic Registry

Item class PrimeMeridian

Name Greenwich

Item status VALID
Identifier 25

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 °