Item class GeodeticCRS

Name WGS 84 (G1150) - LatLonEHt

Item status VALID
Identifier 414

Information source Title Addendum to NIMA TR 8350.2: Implementation

of the World Geodetic System 1984 (WGS 84)

Reference Frame G1150

Author National Imagery and Mapping Agency
Publisher National Imagery and Mapping Agency

Publication date 2003

Edition date

Series/Journal name Technical Report

Issue identification TR8350.2

Information source Title A Refinement to the World Geodetic System 1984

Reference Frame

Author M. J. Merrigan, E.R. Swift, R.F. Wong, Saffel J.T.

Publisher Institute of Navigation

Publication date 2002-09

Edition date

Series/Journal name Proceedings of the 15th International Technical

Meeting of the Satellite Division of The Institue of Navigation (ION-GPS-2002), Portland, OR,

September 2002

Page 1519-1529

Data source ISO Geodetic Registry

Remarks Replaces WGS 84 (G873) - LatLonEHt. Replaced by WGS 84 (G1674)

- LatLonEHt.

Scope Spatial Referencing and GPS satellite navigation.

Datum World Geodetic System 1984 (G1150)

Coordinate System Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height.

Orientations: north, east, up. UoM: degree, degree, metre.

### Extent

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

Item class GeodeticDatum

Name World Geodetic System 1984 (G1150)

Item status VALID Identifier 114

Alias WGS 84 (G1150)

Information source Title Affirmation of Vertical Datum for Surveying and

Mapping Activities for the Islands of Rota, Saipan and Tinian of the Commonwealth of the Northern

Mariana Islands (CNMI)

Author US Government

Publisher Office of Federal Register, NARA

Publication date 2009-01-22 Edition date 2009-01-22

Series/Journal name Federal Register Notice

Issue identification Volume 74, No. 13, Document: E9-1180, Citation:

74 FR 3990

Page 3990-3991

Other citation details Mandates use of NMVD03

Information source Title A Refinement to the World Geodetic System 1984

Reference Frame

Author M. J. Merrigan, E.R. Swift, R.F. Wong, Saffel J.T.

Publisher Institute of Navigation

Publication date 2002-09

Edition date

Series/Journal name Proceedings of the 15th International Technical

Meeting of the Satellite Division of The Institue of Navigation (ION-GPS-2002), Portland, OR,

September 2002

Page 1519-1529

Information source Title Addendum to NIMA TR 8350.2: Implementation

of the World Geodetic System 1984 (WGS 84)

Reference Frame G1150

Author National Imagery and Mapping Agency
Publisher National Imagery and Mapping Agency

Publication date 2003

Edition date

Series/Journal name Technical Report

Issue identification TR8350.2

Data source ISO Geodetic Registry

Remarks Replaces World Geodetic System 1984 (G873) from 2002-01-20.

Replaced by World Geodetic System 1984 (G1674) from 2012-02-08. Used in broadcast ephemeris from 2002-01-20 to 2012-02-07 and in

precise ephemeris from 2002-01-20 to 2012-05-06.

Anchor definition Defined through coordinates of 17 GPS tracking stations adjusted to a

subset of 49 IGS stations. Observations made in February 2001. The reference epoch for ITRF2000 is 1997.0; the station coordinates were

propagated to 2001.0 using IERS station velocities.

Release date 2002-01-20
Coordinate Reference Epoch 2001.0

Scope Spatial Referencing and GPS satellite navigation

Ellipsoid WGS 84
Prime Meridian Greenwich

Extent

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

Item class Ellipsoid

Name **WGS 84** 

Item status **VALID** Identifier 30 Alias **WGS84** 

Information source

Information source Title Department of Defense World Geodetic System

1984: Its Definition and Relationships with Local

Geodetic Systems, Version 1.0.0

National Geospatial-Intelligence Agency Author Publisher National Geospatial-Intelligence Agency

Publication date 2014-07-08

Series/Journal name Standardization Document Issue identification NGA.STND.0036\_1.0.0\_WGS84 Title World Geodetic System 1984

**Author** L.B. Decker, Defense Mapping Agency

Aerospace Center

Publisher Defense Mapping Agency Aerospace Center

Publication date 1986-04

Edition date

Title Refinements to The World Geodetic System 1984 Information source

S. Malys, J.A. Slater, R.W. Smith, L.E. Kunz, S.C. **Author** 

Publisher Institute of Navigation

Publication date 1997-09

Edition date

Series/Journal name Proceedings of the 10th International Technical

Meeting of the Satellite Division of The Institue of Navigation (ION-GPS-1997), Kansas City, MO,

September 1997

841-850 Page

Data source ISO Geodetic Registry

The World Geodetic System 1984 (WGS 84) contains four defining Remarks

> physical parameters for the Earth: the semi-major axis (a), the reciprocal of flattening (1/f) of an oblate spheroid of revolution, the geocentric gravitational constant (GM = 3.986004418e14 m^3/s^2) includes the mass of the atmosphere, and the Earth's angular rotational

velocity about its spin axis (omega = 7.2921150e-5 rad/s).

6378137.0 m Semi-major axis Inverse flattening 298.2572236 m

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 °

EllipsoidalCS Item class

Name Ellipsoidal 3D CS. Axes: latitude, longitude,

ellipsoidal height. Orientations: north, east, up.

UoM: degree, degree, metre.

**VALID** Item status Identifier 46

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization Author

(ISO)

Publisher International Organization for Standardization

(ISO)

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

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Remarks Used in geographic 3D coordinate reference systems. Horizontal

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.

#### Axes

Item class CoordinateSystemAxis

Name Geodetic latitude

Item status **VALID** Identifier 38

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization **Author** 

(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

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

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)

Item class CoordinateSystemAxis

Name Ellipsoidal height

Item statusVALIDIdentifier36

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 only as part of an ellipsoidal 3D coordinate system in a

geographic 3D coordinate reference system, never on its own.

Abbreviation h
Direction up

Unit metre