ISO Geodetic Registry

Item class GeodeticDatum

Name World Geodetic System 1984 (G1674)

Item status VALID
Identifier 196

Alias WGS 84 (G1674)

Information source Title Recent Updates to the WGS 84 Reference Frame

Author R.F. Wong, C.M. Rollins, C.F. Minter

Publisher Institute of Navigation

Publication date 2012-09

Edition date

Series/Journal name Proceedings of the 25th International Technical

Meeting of the Satellite Division of The Institue of Navigation (ION-GNSS-2012), Nashville, TN,

September 2012

Page 1164-1172

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

Data source ISO Geodetic Registry

Remarks Replaces World Geodetic System 1984 (G1150) from 2012-02-08.

Replaced by World Geodetic System 1984 (G1762) from 2013-10-16. Used in broadcast ephemeris from 2012-02-08 to 2013-10-15 and in

precise ephemeris from 2012-05-07 to 2013-10-15.

Anchor definition Defined through coordinates of 15 GPS tracking stations adjusted to a

subset of IGS stations at epoch 2005.0. The IGS station coordinates

are considered to be equivalent to ITRF2008.

Release date 2012-02-08
Coordinate Reference Epoch 2005.0

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 |

ISO Geodetic Registry

Item class Ellipsoid

Name WGS 84

Item statusVALIDIdentifier30

Alias WGS84

Information source Title Department of Defense World Geodetic System

1984: Its Definition and Relationships with Local

Geodetic Systems, Version 1.0.0

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

Publication date 2014-07-08

Series/Journal name Standardization Document
Issue identification NGA.STND.0036_1.0.0_WGS84

Information source 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

Information source Title Refinements to The World Geodetic System 1984

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

Kenyon

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

Page 841-850

Data source ISO Geodetic Registry

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

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).

Semi-major axis 6378137.0 m

Inverse flattening 298.2572236 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 °