ISO Geodetic Registry

GeodeticDatum Item class

Name North American Datum of 1983 (2011) Epoch

2010

Item status **VALID** Identifier 126

Alias NAD83(2011)

Information source Title Notice to Adopt Standard Method for Horizontal

Datum Transformation

Author US Government

Office of Federal Register, NARA Publisher

Publication date 1990-08-10 Edition date 1990-08-10

Series/Journal name Federal Register Notice

Volume 55, No. 155, Document: 00-18809 Issue identification

32681.0

Other citation details Mandates use of NADCON for official

transformations between datums

Information source Title NADCON 5.0: Geometric Transformation Tool for

points in the National Spatial Reference System

Author D. Smith, A. Bilich

Publisher NOAA's National Geodetic Survey

Publication date 2017-03-27 2017-03-27 Edition date

Series/Journal name NGS Technical Report

Other citation details Replaces version 4.2 and all earlier. Provides

gridding algorithm, datum transformations, and

extents of covnversion grids.

Title **CORS** Coordinates Information source

> National Geodetic Survey Author

Publisher National Oceanic and Atmospheric Administration

(NOAA) National Geodetic Survey (NGS)

Revision date 2017-05-16

Series/Journal name NGS Online listing of transformation parameters

Other citation details webpage

Information source Title Publication of North American Datum of 1983

> (2011) Epoch 2010.00, North American Datum of 1983 (PA2011) Epoch 2010.00 and North American Datum of 1983 (MA2011) Epoch

2010.00

Author US Government

Publisher Office of Federal Register, NARA

Publication date 2013-08-08 2013-08-08 Edition date

Series/Journal name Federal Register Notice

Volume 78, No. 153, Document: 2013-19167, Issue identification

Citation: 78 FR 48421

48421-48422

Data source ISO Geodetic Registry

Remarks Replaces NAD83(CORS96) Epoch 2002.0 for control determined in an

active reference frame and NAD83 (2007) for passive control.

Realization of NAD83. The frame is defined by a time-dependent Anchor definition

seven parameter transformation of ITRF2008 3D geocentric Cartesian

coordinates and velocities for the Conterminous United States

(CONUS), including Alaska, Puerto Rico and the U.S. Virgin Islands at reference epoch 2010.0. The frame is kept aligned to North America at other epochs using the NNR-NUVEL-1A estimate of three Cartesian rotation rates of change representing the tectonic plate motion of North America. The origin, scale and orientation of the frame are nominally defined to be that for the BIH Terrestrial System 1984 (BTS84). This also is a realization of passive control constrained to the values at the CORS. NAD83(20110 serves as a connection between passive network transformed by grids and active frames defined by time-

dependent transformations. 2013

Release date 2013
Coordinate Reference Epoch 2010.0

Scope Spatial referencing

Ellipsoid GRS 1980
Prime Meridian Greenwich

Extent

-		
Description	United States and Territories - onshore	
	and offshore: Puerto Rico. United States	
	(USA) - Alaska, CONUS (Alabama, Arizona,	
	Arkansas, California, Colorado, Connecticut,	
	Delaware, Florida, Georgia, Idaho, Illinois,	
	Indiana, Iowa, Kansas, Kentucky, Louisiana,	
Maine, Maryland,		achusetts, Michigan,
	Minnesota, Mississippi, Missouri, Montana,	
Nebraska, Nevada, Nev		Hampshire, New
	Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon,	
	South Dakota, Tennessee, Texas, Utah,	
	Vermont, Virginia, Washington, West Virginia,	
		Wisconsin, Wyoming). Virgin Islands (US).
Geographic Bounding Box	West-bound longitude	167.65
	North-bound latitude	74.71
	East-bound longitude	-63.88
	South-bound latitude	14.92

ISO Geodetic Registry

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

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 °