

ISO Geodetic Registry

Item class	GeodeticCRS	
Name	NAD 83 (CORS96) Epoch 1997.0 - LatLonEHt	
Item status	VALID	
Identifier	385	
Alias	North American Datum of 1983 (CORS96) Epoch 1997.0	
Information source	Title	NGS No Longer Updates Published CORS Coordinates in the Following Reference Frames
	Author	National Geodetic Survey
	Publisher	National Oceanic and Atmospheric Administration (NOAA) National Geodetic Survey (NGS)
	Revision date	2017-03-16
	Edition date	2017-03-16
	Series/Journal name	NGS Online listing of transformation parameters
	Other citation details	webpage
	Information source	Title
Author		D. Smith, A. Bilich
Publisher		NOAA's National Geodetic Survey
Publication date		2017-03-27
Edition date		2017-03-27
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.
Information source		Title
	Author	R.A. Snay, T. Soler
	Publisher	ASCE
	Publication date	2008-04-01
	Edition date	2008-04-01
	Series/Journal name	Journal of Surveying Engineering
	Issue identification	Volume 134, No. 4
	Page	95-104
	Other citation details	NAD83 (CORS96) Epoch 1996.0,NAD83 (CORS96) Epoch 1997.0,NAD83 (CORS96) Epoch 2002.0
	Information source	Title
Author		US Government
Publisher		Office of Federal Register, NARA
Publication date		1990-08-10
Edition date		1990-08-10
Series/Journal name		Federal Register Notice
Issue identification		Volume 55, No. 155, Document: 00-18809
Page		32681.0
Other citation details		Mandates use of NADCON for official transformations between datums
Data source	ISO Geodetic Registry	
Scope	Spatial referencing	
Datum	North American Datum of 1983 (CORS96) Epoch 1997.0	
Coordinate System	Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height. Orientations: north, east, up. UoM: degree, degree, metre.	

Extent

<i>Description</i>	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, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming). Virgin Islands (US).								
<i>Geographic Bounding Box</i>	<table> <tr> <td><i>West-bound longitude</i></td><td>167.65</td></tr> <tr> <td><i>North-bound latitude</i></td><td>74.71</td></tr> <tr> <td><i>East-bound longitude</i></td><td>-63.88</td></tr> <tr> <td><i>South-bound latitude</i></td><td>14.92</td></tr> </table>	<i>West-bound longitude</i>	167.65	<i>North-bound latitude</i>	74.71	<i>East-bound longitude</i>	-63.88	<i>South-bound latitude</i>	14.92
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<i>North-bound latitude</i>	74.71								
<i>East-bound longitude</i>	-63.88								
<i>South-bound latitude</i>	14.92								

ISO Geodetic Registry

<i>Item class</i>	GeodeticDatum
<i>Name</i>	North American Datum of 1983 (CORS96) Epoch 1997.0
<i>Item status</i>	VALID
<i>Identifier</i>	139
<i>Alias</i>	NAD83(CORS96)
<i>Information source</i>	<p><i>Title</i> NGS No Longer Updates Published CORS Coordinates in the Following Reference Frames</p> <p><i>Author</i> National Geodetic Survey</p> <p><i>Publisher</i> National Oceanic and Atmospheric Administration (NOAA) National Geodetic Survey (NGS)</p> <p><i>Revision date</i> 2017-03-16</p> <p><i>Edition date</i> 2017-03-16</p> <p><i>Series/Journal name</i> NGS Online listing of transformation parameters</p> <p><i>Other citation details</i> webpage</p>
<i>Information source</i>	<p><i>Title</i> Continuously Operating Reference Station (CORS): History, Applications, and Future Enhancements</p> <p><i>Author</i> R.A. Snay, T. Soler</p> <p><i>Publisher</i> ASCE</p> <p><i>Publication date</i> 2008-04-01</p> <p><i>Edition date</i> 2008-04-01</p> <p><i>Series/Journal name</i> Journal of Surveying Engineering</p> <p><i>Issue identification</i> Volume 134, No. 4</p> <p><i>Page</i> 95-104</p> <p><i>Other citation details</i> NAD83 (CORS96) Epoch 1996.0,NAD83 (CORS96) Epoch 1997.0,NAD83 (CORS96) Epoch 2002.0</p>
<i>Data source</i>	ISO Geodetic Registry
<i>Remarks</i>	Replaces NAD83(1986). Replaced by NAD83(CORS96) Epoch 2002.0.
<i>Anchor definition</i>	Realization of NAD83. The frame is defined by a time-dependent seven parameter transformations of ITRF96 and ITRF97 3D geocentric Cartesian coordinates and velocities at reference epoch 1997.0. 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).
<i>Release date</i>	1998
<i>Coordinate Reference Epoch</i>	1997.0
<i>Scope</i>	Spatial referencing
<i>Ellipsoid</i>	GRS 1980
<i>Prime Meridian</i>	Greenwich

Extent

<i>Description</i>	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,
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Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming). Virgin Islands (US).

Geographic Bounding Box

<i>West-bound longitude</i>	167.65
<i>North-bound latitude</i>	74.71
<i>East-bound longitude</i>	-63.88
<i>South-bound latitude</i>	14.92

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<i>Item class</i>	Ellipsoid														
<i>Name</i>	GRS 1980														
<i>Item status</i>	VALID														
<i>Identifier</i>	27														
<i>Alias</i>	Geodetic Reference System 1980														
<i>Alias</i>	GRS1980														
<i>Alias</i>	IAG GRS80														
<i>Alias</i>	International 1979														
<i>Alias</i>	GRS80														
<i>Information source</i>	<table> <tr> <td><i>Title</i></td><td>Geodetic Reference System 1980</td></tr> <tr> <td><i>Author</i></td><td>H. Moritz</td></tr> <tr> <td><i>Publisher</i></td><td>Springer International Publishing</td></tr> <tr> <td><i>Publication date</i></td><td>2003-03</td></tr> <tr> <td><i>Series/Journal name</i></td><td>Journal of Geodesy</td></tr> <tr> <td><i>Issue identification</i></td><td>Volume 74, No. 1</td></tr> <tr> <td><i>Page</i></td><td>128–162</td></tr> </table>	<i>Title</i>	Geodetic Reference System 1980	<i>Author</i>	H. Moritz	<i>Publisher</i>	Springer International Publishing	<i>Publication date</i>	2003-03	<i>Series/Journal name</i>	Journal of Geodesy	<i>Issue identification</i>	Volume 74, No. 1	<i>Page</i>	128–162
<i>Title</i>	Geodetic Reference System 1980														
<i>Author</i>	H. Moritz														
<i>Publisher</i>	Springer International Publishing														
<i>Publication date</i>	2003-03														
<i>Series/Journal name</i>	Journal of Geodesy														
<i>Issue identification</i>	Volume 74, No. 1														
<i>Page</i>	128–162														
<i>Information source</i>	<table> <tr> <td><i>Title</i></td><td>Geodetic Reference System 1980</td></tr> <tr> <td><i>Author</i></td><td>H. Moritz</td></tr> <tr> <td><i>Publisher</i></td><td>International Association of Geodesy</td></tr> <tr> <td><i>Publication date</i></td><td>1984</td></tr> <tr> <td><i>Series/Journal name</i></td><td>Bulletin Geodesique</td></tr> <tr> <td><i>Issue identification</i></td><td>Volume 58, No. 3</td></tr> <tr> <td><i>Page</i></td><td>395-405</td></tr> </table>	<i>Title</i>	Geodetic Reference System 1980	<i>Author</i>	H. Moritz	<i>Publisher</i>	International Association of Geodesy	<i>Publication date</i>	1984	<i>Series/Journal name</i>	Bulletin Geodesique	<i>Issue identification</i>	Volume 58, No. 3	<i>Page</i>	395-405
<i>Title</i>	Geodetic Reference System 1980														
<i>Author</i>	H. Moritz														
<i>Publisher</i>	International Association of Geodesy														
<i>Publication date</i>	1984														
<i>Series/Journal name</i>	Bulletin Geodesique														
<i>Issue identification</i>	Volume 58, No. 3														
<i>Page</i>	395-405														
<i>Data source</i>	ISO Geodetic Registry														
<i>Remarks</i>	Adopted by IUGG 1979 Canberra. Inverse flattening is derived from geocentric gravitational constant $GM = 3986005e8 \text{ m}^3/\text{s}^2$, dynamic form factor $J_2 = 108263e-8$ and Earth's angular velocity = $7292115e-11 \text{ rad/s}$.														
<i>Semi-major axis</i>	6378137.0 m														
<i>Inverse flattening</i>	298.257222101 m														

ISO Geodetic Registry

<i>Item class</i>	PrimeMeridian	
<i>Name</i>	Greenwich	
<i>Item status</i>	VALID	
<i>Identifier</i>	25	
<i>Alias</i>	Zero meridian	
<i>Information source</i>	<i>Title</i>	Why the Greenwich meridian moved
	<i>Author</i>	S. Malys, J.H. Seago, N.K. Pavlis, P.K. Seidelmann, G.H. Kaplan
	<i>Publisher</i>	Springer International Publishing
	<i>Publication date</i>	2015-12
	<i>Series/Journal name</i>	Journal of Geodesy
	<i>Issue identification</i>	Volume 89, No. 12
	<i>Page</i>	1263–1272
	<i>Title</i>	IERS Conventions (2010)
	<i>Author</i>	G. Petit, B.J. Luzum (eds)
	<i>Publisher</i>	Verlag des Bundesamts für Kartographie und Geodäsie
<i>Information source</i>	<i>Publication date</i>	2010
	<i>Edition date</i>	
	<i>Series/Journal name</i>	IERS Technical Notes
	<i>Issue identification</i>	36.0
	<i>Other citation details</i>	ISSN: 1019-4568
<i>Data source</i>	ISO Geodetic Registry	
<i>Greenwich longitude</i>	0.0 °	

ISO Geodetic Registry

<i>Item class</i>	EllipsoidalCS	
<i>Name</i>	Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height. Orientations: north, east, up. UoM: degree, degree, metre.	
<i>Item status</i>	VALID	
<i>Identifier</i>	46	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	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

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	Geodetic latitude	
<i>Item status</i>	VALID	
<i>Identifier</i>	38	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Used in geographic 2D and geographic 3D coordinate reference systems.	
<i>Abbreviation</i>	Lat	
<i>Direction</i>	north	
<i>Unit</i>	degree (supplier to define representation)	

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	Geodetic longitude	
<i>Item status</i>	VALID	
<i>Identifier</i>	34	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)

	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Used in geographic 2D and geographic 3D coordinate reference systems.	
<i>Abbreviation</i>	Lon	
<i>Direction</i>	east	
<i>Unit</i>	degree (supplier to define representation)	

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	Ellipsoidal height	
<i>Item status</i>	VALID	
<i>Identifier</i>	36	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Used only as part of an ellipsoidal 3D coordinate system in a geographic 3D coordinate reference system, never on its own.	
<i>Abbreviation</i>	h	
<i>Direction</i>	up	
<i>Unit</i>	metre	