ISO Geodetic Registry

Item class	GeodeticDatum	
Name	**North American Datum of 1983**	
Item status	VALID	
Identifier	161	
Alias	NAD83(Original)	
Alias	NAD83	
Alias	NAD83(1986)	
Alias	NAD 83 (1986)	
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
	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*	North American Datum of 1983
	Author	C.R. Schwarz (ed)
	Publisher	U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Charting and Geodetic Services, Rockville, MD
	Publication date	1989-12
	Series/Journal name	NOAA Professional Paper
	Issue identification	NOS 2
Information source	*Title*	The Evolution of NAD83 in Canada
	Author	M. Craymer
	Publisher	Canadian Institute of Geomatics
	Publication date	2006
	Series/Journal name	Geomatica
	Issue identification	Volume 60, No. 2
	Page	151-164
Information source	*Title*	Evolution of NAD 83 in the United States: Journey from 2D toward 4D
	Author	R.A. Snay
	Publisher	American Society of Civil Engineers
	Publication date	2012-11
	Series/Journal name	Journal of Surveying Engineering
	Issue identification	Volume 138, No. 4
	Page	161-171
Information source	*Title*	The NAD 83 Project - Status and Background
	Author	J.D. Boal, J.P. Henderson
	Publisher	Canadian Institute of Geomatics
	Publication date	1988
	Series/Journal name	Papers for the CISM Seminars on the NAD '83 Redefinition in Canada and the Impact on Users
Information source	*Title*	The Canadian Spatial Reference System (CSRS)
	Author	Canadian Geodetic Survey
	Publisher	Canadian Geodetic Survey, Surveyor General Branch, Earth Sciences Sector, Natural Resources Canada, Government of Canada
	Publication date	2016-08-30
Information source	*Title*	Notice to Adopt Standard Method for Horizontal Datum Transformation

	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
Information source	*Title*	The Evolution of NAD83 in Canada: Addendum
	Author	M. Craymer
	Publisher	Canadian Institute of Geomatics
	Publication date	2006
	Series/Journal name	Geomatica
	Issue identification	Volume 60, No. 4
	Page	433.0
Information source	*Title*	Project REDEAM: Models for Historical Horizontal Deformation
	Author	R.A. Snay, M.W. Cline, E.L. Timmerman
	Publisher	U.S. Dept. of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Charting and Geodetic Services, Rockville, MD
	Publication date	1987-09
	Series/Journal name	NOAA Technical Report
	Issue identification	NOS 125 NGS 42
Data source	ISO Geodetic Registry	
Remarks	The 1986 adjustment includes connections to Greenland and Mexico but the system has not been adopted there. A set of numerical horizontal crustal motion models for California, Nevada, parts of Alaska and Hawaii were used to estimate horizontal velocities in order to convert geodetic observations from their original epoch to 1984.0. For other parts of the network, no datum realization epoch exists (datum is a mix of observations from different eras). Replaced NAD27 in Canada and U.S. Replaced by NAD 83 (HARN) in US and NAD83(CSRS96) v1 in Canada.	
Anchor definition	Original 1986 horizontal network adjusment. The origin, scale and orientation of the frame are nominally defined to be that for the BIH Terrestrial System 1984 (BTS84) with origin at the approximate geocentre. NAD83 Doppler stations in the Doppler reference frame NWL 9D were brought into alignment with BTS84 using an internationally adopted transformation.	
Release date	1986	
Scope	Spatial referencing	
Ellipsoid	GRS 1980	
Prime Meridian	Greenwich	

Extent

Description	**North America - onshore and offshore: Canada - Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan, Yukon. 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), Hawaii. Virgin Islands (British). Virgin Islands (US).	
Geographic Bounding Box	*West-bound longitude*	167.65
	North-bound latitude	86.46
	East-bound longitude	-47.74
	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 °	