ISO Geodetic Registry

Item class Transformation

Name ITRF2000 to NAD 83 (CORS96) Epoch 2002.0

[v1]

Item statusVALIDIdentifier524

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 Introducing HTDP 3.1 to transform coordinates

across time and spatial reference frames

Author C. Pearson, R.A. Snay Publisher Springer-Verlag

Publication date 2013-01-01
Edition date 2013-01-01
Series/Journal name GPS Solutions
Issue identification Volume 17, No. 1

Page 1-15

Other citation details NAD83 (2011), NAD83 (MA11), NAD83 (PA11)

transformation from IGb08

Information source Title Transforming positions and velocities between the

International Terrestrial Reference Frame of 2000

and the North American Datum of 1983

Author T. Soler, R.A. Snay

Publisher American Society of Civil Engineers

Publication date 2004-05

Series/Journal name Journal of Surveying Engineering

Issue identification Volume 130, No. 2

Page 49-55

Information source Title Continuously Operating Reference Station

(CORS): History, Applications, and Future

Enhancements

Author R.A. Snay, T. Soler

PublisherASCEPublication date2008-04-01Edition date2008-04-01

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

Data source ISO Geodetic Registry

Remarks Transformation defines NAD83(CORS96) and is treated as errorless.

Operation version v1

Scope Spatial referencing

Operation accuracy 0.0 m

Source CRS ITRF2000 - XYZ

Target CRS NAD 83 (CORS96) Epoch 2002.0 - XYZ

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, 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	West-bound longitude	167.65
	North-bound latitude	74.71
	East-bound longitude	-63.88
	South-bound latitude	14.92

Operation parameter values

X-axis translation	0.9956 metre
Y-axis translation	-1.9013 metre
Z-axis translation	-0.5215 metre
X-axis rotation	25.915 milliarc-second
Y-axis rotation	9.426 milliarc-second
Z-axis rotation	11.599 milliarc-second
Scale difference	0.62 parts per billion
Rate of change of X-axis translation	7.0E-4 metre per year
Rate of change of Y-axis translation	-7.0E-4 metre per year
Rate of change of Z-axis translation	5.0E-4 metre per year
Rate of change of X-axis rotation	0.067 milliarc-second per year
Rate of change of Y-axis rotation	-0.757 milliarc-second per year
Rate of change of Z-axis rotation	-0.051 milliarc-second per year
Rate of change of scale difference	-0.18 parts per billion per year
Time reference	1997.0 year

ISO Geodetic Registry

Item class OperationMethod

Name Time-Dependent Coordinate Frame

Transformation (geocentric Cartesian domain)

Item status VALID
Identifier 94

Alias Time-Dependent 7-Parameter Transformation

Alias 14-Parameter Transformation

Alias Time-Dependent Coordinate Frame Transformation

Data source ISO Geodetic Registry

Remarks Note the analogy with the Time-dependent Position Vector

Transformation but beware of the differences! The Position Vector

Transformation convention is used by IAG.

Formula Geomatics Guidance Note No 7, part 2: Coordinate Conversions and

Transformations including Formulas

Operation parameters

X-axis translation

Y-axis translation

Z-axis translation

X-axis rotation

Y-axis rotation

Z-axis rotation

Scale difference

Rate of change of X-axis translation

Rate of change of Y-axis translation

Rate of change of Z-axis translation

Rate of change of X-axis rotation

Rate of change of Y-axis rotation

Rate of change of Z-axis rotation

Rate of change of scale difference

Time reference