

# ISO Geodetic Registry

<i>Item class</i>	Transformation	
<i>Name</i>	<b>CGVD28 to CGVD2013(CGG2013a) epoch 2002 [v1]</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	976	
<i>Information source</i>	<i>Title</i>	GPS-H
	<i>Author</i>	Canadian Geodetic Survey
	<i>Publisher</i>	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	<i>Revision date</i>	2021-03-15
	<i>Other citation details</i>	Website: <a href="https://webapp.geod.nrcan.gc.ca/geod/tools-outils/gpsh.php">https://webapp.geod.nrcan.gc.ca/geod/tools-outils/gpsh.php</a>
<i>Information source</i>	<i>Title</i>	Height Transformation version 2.0 (HTv2.0), Epochs 2002.0 and 2010.0
	<i>Author</i>	M. Veronneau
	<i>Publisher</i>	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	<i>Publication date</i>	2019
	<i>Series/Journal name</i>	Internal Report
<i>Information source</i>	<i>Title</i>	Geoid Models
	<i>Author</i>	Canadian Geodetic Survey
	<i>Publisher</i>	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	<i>Revision date</i>	2021-12-07
	<i>Other citation details</i>	Website: <a href="https://webapp.geod.nrcan.gc.ca/geod/data-donnees/geoid.php?locale=en">https://webapp.geod.nrcan.gc.ca/geod/data-donnees/geoid.php?locale=en</a> (accessed 2022-01-21).
<i>Information source</i>	<i>Title</i>	Referencing and Time Tagging Heights in Canada
	<i>Author</i>	M. Veronneau
	<i>Publisher</i>	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	<i>Publication date</i>	2018
	<i>Series/Journal name</i>	Internal Report
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Grid transformation from CGVD28 normal orthometric heights to CGVD2013(CGG2013a) orthometric heights at epoch 2002.0. Bi-linear interpolation of the grid file will give results agreeing to within 1cm 99.97% of the time.	
<i>Operation version</i>	v1	
<i>Scope</i>	Spatial referencing.	
<i>Operation accuracy</i>	0.05 m	
<i>Source CRS</i>	CGVD28 - NOHt	
<i>Target CRS</i>	CGVD2013(CGG2013a) epoch 2002 - OHt	
<i>Operation method</i>	Gravity-related height transformation (Canada)	

## Extent

<i>Description</i>	<b>Canada - onshore - Alberta, British Columbia, Manitoba south of 57°N, New Brunswick, Northwest Territories south west of a line between 60°N, 110°W and the coast at 132°W,</b>
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**Nova Scotia, Ontario south of 52°N, Prince Edward Island, Quebec - mainland west of 66°W and south of 55°N, Saskatchewan south of 55°N, Yukon.**

<i>Geographic Bounding Box</i>	<i>West-bound longitude</i>	-141.01
	<i>North-bound latitude</i>	69.8
	<i>East-bound longitude</i>	-59.73
	<i>South-bound latitude</i>	41.67

#### Operation parameter values

<i>Geoid (height correction) model file</i>	HT2_2002v70_CGG2013a.byn
<i>ISOGM code for Interpolation CRS</i>	320.0 unity

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<i>Item class</i>	OperationMethod
<i>Name</i>	<b>Gravity-related height transformation (Canada)</b>
<i>Item status</i>	VALID
<i>Identifier</i>	962
<i>Alias</i>	GPS-H
<i>Data source</i>	ISO Geodetic Registry
<i>Remarks</i>	Transforms gravity-related heights between CGVD28 and CGVD2013(CGG2013a) vertical datums using GPS-H software with coordinate epoch propagation and bi-quadratic interpolation of a grid of geoid model differences. See information sources for algorithm and file format documentation.

## Operation parameters

<i>Geoid model difference file</i>
<i>ISOGR code for Interpolation CRS</i>