ISO Geodetic Registry

Item class	Transformation	
Name	**CGVD28 to CGVD2013(CGG2013a) epoch 1997 [v1]**	
Item status	VALID	
Identifier	975	
Information source	*Title*	Height Transformation version 2.0 (HTv2.0), Epochs 2002.0 and 2010.0
	Author	M. Veronneau
	Publisher	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	Publication date	2019
	Series/Journal name	Internal Report
Information source	*Title*	Referencing and Time Tagging Heights in Canada
	Author	M. Veronneau
	Publisher	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	Publication date	2018
	Series/Journal name	Internal Report
Information source	*Title*	GPS-H
	Author	Canadian Geodetic Survey
	Publisher	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	Revision date	2021-03-15
	Other citation details	Website: https://webapp.geod.nrcan.gc.ca/geod/tools-outils/gpsh.php
Information source	*Title*	Geoid Models
	Author	Canadian Geodetic Survey
	Publisher	Geodetic Survey Division, Natural Resources Canada, Government of Canada
	Revision date	2021-12-07
	Other citation details	Website. https://webapp.geod.nrcan.gc.ca/geod/data-donnees/geoid.php?locale=en (accessed 2022-01-21).
Data source	ISO Geodetic Registry	
Remarks	Grid transformation from CGVD28 normal orthometric heights to CGVD2013(CGG2013a) orthometric heights at epoch 1997.0. Bi-linear interpolation of the grid file will give results agreeing to within 1cm 99.97% of the time.	
Operation version	v1	
Scope	Spatial referencing.	
Operation accuracy	0.05 m	
Source CRS	CGVD28 - NOHt	
Target CRS	CGVD2013(CGG2013a) epoch 1997 - OHt	
Operation method	Gravity-related height transformation (Canada)	

Extent

Description	**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,**

	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.	
Geographic Bounding Box	*West-bound longitude*	-141.01
	North-bound latitude	69.8
	East-bound longitude	-59.73
	South-bound latitude	41.67

Operation parameter values

Geoid (height correction) model file	HT2_1997_CGG2013a.byn
ISOGR code for Interpolation CRS	320.0 unity

ISO Geodetic Registry

Item class	OperationMethod
Name	**Gravity-related height transformation (Canada)**
Item status	VALID
Identifier	962
Alias	GPS-H
Data source	ISO Geodetic Registry
Remarks	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

Geoid model difference file
ISOGR code for Interpolation CRS