

ISO Geodetic Registry

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|---------------------------|--|---|
| <i>Item class</i> | Transformation | |
| <i>Name</i> | NAD83(CSRS) v3 to CGVD2013(CGG2013a) epoch 1997 [v1] | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 972 | |
| <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: https://webapp.geod.nrcan.gc.ca/geod/data-donnees/geoid.php?locale=en (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>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> | 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: https://webapp.geod.nrcan.gc.ca/geod/tools-ouils/gpsh.php |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Grid transformation from NAD83(CSRS) v3 ellipsoidal heights at epoch 1997.0 to CGVD2013(CGG2013a) orthometric heights at epoch 1997.0 using the CGG2013a geoid model upon which CGVD2013(CGG2013a) is defined. 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> | NAD83(CSRS) v3 - LatLonEHt | |
| <i>Target CRS</i> | CGVD2013(CGG2013a) epoch 1997 - OHt | |
| <i>Operation method</i> | Geographic3D to Gravity Related Height (Canada) | |

Extent

| | |
|--------------------|---|
| <i>Description</i> | Canada - onshore and offshore - Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, |
|--------------------|---|

| | | |
|---|-----------------------------|---------|
| Prince Edward Island, Quebec, Saskatchewan, Yukon. | | |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | -141.01 |
| | <i>North-bound latitude</i> | 90.0 |
| | <i>East-bound longitude</i> | -47.74 |
| | <i>South-bound latitude</i> | 40.04 |

Operation parameter values

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|---|-----------------|
| <i>Geoid (height correction) model file</i> | CGG2013an83.byn |
|---|-----------------|

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|--------------------|--|
| <i>Item class</i> | OperationMethod |
| <i>Name</i> | Geographic3D to Gravity Related Height (Canada) |
| <i>Item status</i> | VALID |
| <i>Identifier</i> | 89 |
| <i>Data source</i> | ISO Geodetic Registry |
| <i>Remarks</i> | For consistency with earlier geoid models in Canada, reference software for CGG2013 and CGG2013a uses bi-quadratic interpolation over nine grid nodes. The bi-linear interpolation is sufficient for most uses as the newer models have a higher spatial resolution. See information source for file format documentation. |
| <i>Formula</i> | The GPS Height Transformation (v2.0): An Ellipsoidal-CGVD28 Height Transformation for Use With GPS in Canada |

Operation parameters

Geoid (height correction) model file