ISO Geodetic Registry

Item class Transformation

Name ITRF2008 to CGVD2013(CGG2013a) Epoch 2010

- OHt [v1]

Item statusVALIDIdentifier535

Alias ITRF2008 to CGVD2013(CGG2013a) - OHt [v1]

Information source Title Canadian Gravimetric Geoid 2013 – Version A

(CGG2013a)

Author M. Veronneau, J. Huang

Publisher Geodetic Survey Division, Natural Resources

Canada, Government of Canada

Publication date 2015-11

Information source Title The Canadian Geodetic Vertical Datum of 2013

(CGVD2013)

Author M. Veronneau, J. Huang
Publisher Canadian Institute of Geomatics

Publication date 2016
Series/Journal name Geomatica
Issue identification Volume 70, No. 1

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Remarks Grid transformation from ITRF2008 ellipsoidal heights at epoch 2010.0

to CGVD2013(CGG2013a) orthometric heights at epoch 2010.0 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.

Operation version v

Scope Spatial referencing

Operation accuracy 0.03 m

Source CRS ITRF2008 - LatLonEHt

Target CRS CGVD2013(CGG2013a) Epoch 2010 - OHt

Operation method Geographic3D to Gravity Related Height (Canada)

Extent

Data source

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.

Geographic Bounding Box
West-bound longitude
-141.01

North-bound latitude 90.0
East-bound longitude -47.74
South-bound latitude 40.04

Operation parameter values

Geoid (height correction) model file CGG2013ai08.byn

ISO Geodetic Registry

Item class OperationMethod

Name Geographic3D to Gravity Related Height

(Canada)

Item status VALID Identifier 89

Data source ISO Geodetic Registry

Remarks 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.

Formula The GPS Height Transformation (v2.0): An Ellipsoidal-CGVD28 Height

Transformation for Use With GPS in Canada

Operation parameters

Geoid (height correction) model file