ISO Geodetic Registry

Item class Transformation

NAD83(CSRS) v6 to CGVD2013(CGG2013a)

Epoch 2010 - OHt [v1]

Item status VALID Identifier 596

Alias NAD83(CSRS) v6 to CGVD2013(CGG2013a) - OHt [v1]

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

Page 9.0

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

Data source ISO Geodetic Registry

Remarks Grid transformation from NAD83(CSRS) v6 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 v1

Scope Spatial referencing

Operation accuracy 0.03 m

Source CRS NAD83(CSRS) v6 - LatLonEHt

Target CRS CGVD2013(CGG2013a) Epoch 2010 - OHt

Operation method Geographic3D to Gravity Related Height (Canada)

Extent

Description 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 CGG2013an83.byn

ISO Geodetic Registry

Item class OperationMethod

Name Geographic3D to Gravity Related Height

(Canada)

Item statusVALIDIdentifier89

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