ISO Geodetic Registry

Item class Transformation

NAD83(CSRS) v6 to CGVD2013(CGG2013) - OHt

[v1]

Item status VALID
Identifier 464

Information source Title The Canadian Geodetic Vertical Datum of 2013

(CGVD2013)

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

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Data source ISO Geodetic Registry

Remarks Grid transformation from NAD83(CSRS) v6 ellipsoidal heights to

CGVD2013(CGG2013) orthometric heights using the CGG2013 geoid model upon which CGVD2013(CGG2013) 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(CGG2013) - OHt

Operation method Geographic3D to Gravity Related Height (Canada)

South-bound latitude

Extent

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
North-bound latitude
East-bound longitude
-47.74

Operation parameter values

Geoid (height correction) model file CGG2013n83.byn

40.04

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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