ISO Geodetic Registry

Item class Transformation

Name ITRF96 to NZGD2000 [LINZ v20180701]

Item status VALID Identifier 737

Information source Title Standard for New Zealand Geodetic Datum 2000

Author Office of the Surveyor General Publisher Land Information New Zealand

Publication date 2007-11-16
Issue identification LINZS25000

Information source Title NZGD2000 Deformation Model

Author Land Information New Zealand

Publisher Land Information New Zealand

Revision date 2018-01-15

Information source Title Transforming between ITRF and NZGD2000

Author Land Information New Zealand Publisher Land Information New Zealand

Publication date 2017-05-09

Data source ISO Geodetic Registry

Remarks Uses LINZ NZGD2000 deformation model. The deformation model

transforms an ITRF96 coordinate at a specified epoch to NZGD2000. NZGD2000 is equivalent to ITRF96 epoch 2000 in areas unaffected by earthquakes and other localised deformation. The files required for this version of the transformation are contained within the most recent published version of the deformation model, if a more recent version than this one exists. The nominal operation accuracy is 0.02m horizontally and vertically, which represents the expected consistency

of NZGD2000 coordinates calculated at different epochs, in the

absence of significant local deformation.

Operation version LINZ v20180701
Scope Spatial referencing

Operation accuracy 0.02 m

Source CRS ITRF96 - LatLonEHt

Target CRS NZGD2000 - LatLonEHt

Operation method NZGD2000 Deformation Model

Extent

New Zealand - onshore and offshore Antipodes Islands, Auckland Islands, Bounty
Islands, Campbell Island Chatham Islands,
Kermadec Islands, North Island, Raoul Island,

Snares Islands, South Island, Stewart Island.

Geographic Bounding Box West-bound longitude 160.0
North-bound latitude -25.0

East-bound longitude -170.0 South-bound latitude -60.0

Operation parameter values

NZGD2000 deformation model files nzgd2000_deformation_20180701_full.zip

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Item class OperationMethod

NZGD2000 Deformation Model

Item status VALID
Identifier 81

Data source ISO Geodetic Registry

Remarks This model provides the relationship between a global reference frame

(ie one of the ITRFs) and the local reference frame (NZGD2000). It includes both functional definitions and spatial representations for a range of geophysical deformation sources that are represented as discrete sub-models. Each sub-model may include both horizontal and vertical deformation elements, as well as uncertainties. A sub-model is built of one or more components (such as co-seismic and post-seismic components) that when added together give the total deformation for that event. Each component consists of a time function and a spatial representation. The time function defines how a time-based scale factor gets applied to each deformation element.

Operation parameters

NZGD2000 deformation model files