## ISO Geodetic Registry

Item class Transformation

Name ITRF96 to NZGD2000 [LINZ v20140201]

Item status VALID Identifier 687

Information source Title Transforming between ITRF and NZGD2000

> Land Information New Zealand Author Publisher Land Information New Zealand

Publication date 2017-05-09

Standard for New Zealand Geodetic Datum 2000 Information source Title

> Author Office of the Surveyor General Land Information New Zealand Publisher

2007-11-16 Publication date

Edition date

Issue identification LINZS25000

Title NZGD2000 Deformation Model Information source

**Author** Land Information New Zealand Publisher Land Information New Zealand

Revision date 2018-01-15

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 v20140201 Scope Spatial referencing.

Operation accuracy 0.02 m

Source CRS ITRF96 - LatLonEHt Target CRS NZGD2000 - LatLonEHt

Operation method NZGD2000 Deformation Model

#### Extent

Description 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.

West-bound longitude 160.0 Geographic Bounding Box

> North-bound latitude -25.0 East-bound longitude -170.0 South-bound latitude -60.0

### Operation parameter values

NZGD2000 deformation model files nzgd2000 deformation 20140201 full.zip

# **ISO Geodetic Registry**

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