

# Canterbury - Mackenzie LiDAR Index Tiles (2015)

## Metadata

### File Identifier

1ef525cf-8648-fb04-74c9-9eae1b65e5e1

### Language

eng

### Character Set

#### Character Set Code

utf8

### Hierarchy Level

#### Scope Code

dataset

### Hierarchy Level Name

dataset

## Contact

### Responsible Party

#### Organisation Name

Toitū Te Whenua Land Information New Zealand

#### Position Name

Lidar Coordination Manager

### Contact Info

#### Contact

##### Phone

##### Telephone

##### Voice

04 4600110

##### Address

##### Address

##### Delivery Point

155 The Terrace

##### City

Wellington

##### Postal Code

6145

##### Country

New Zealand

##### Electronic Mail Address

customersupport@linz.govt.nz

### Role

#### Role Code

pointOfContact

#### Date Stamp

Date

2019-05-14

#### Metadata Standard Name

ANZLIC Metadata Profile: An Australian/New Zealand Profile of AS/NZS ISO 19115:2005, Geographic information - Metadata

#### Metadata Standard Version

1.1

#### Reference System Info

Reference System

Reference System Identifier

Identifier

Code

2193

#### Identification Info

Data Identification

Citation

Citation

Title

Canterbury - Mackenzie LiDAR Index Tiles (2015)

Date

#### Abstract

This layer contains the Index Tiles for LiDAR data from the Mackenzie Region, Canterbury captured in 2015. - The DEM is available as layer [Canterbury - Mackenzie LiDAR 1m DEM (2015)] (<https://data.linz.govt.nz/layer/98769-canterbury-mackenzie-lidar-1m-dem-2015/>). - The DSM is available as layer [Canterbury - Mackenzie LiDAR 1m DSM (2015)] (<https://data.linz.govt.nz/layer/99122-canterbury-mackenzie-lidar-1m-dsm-2015/>). - The LAS point cloud and vendor project reports are available from [OpenTopography] (<https://portal.opentopography.org/datasets?loc=New%20Zealand>). Lidar was captured for Genesis Energy Limited by Aerial Surveys Limited in Feb 2015. The original dataset was generated by Aerial Surveys and their subcontractors. This reprocessed dataset was supplied by Aerial Surveys to Toitū Te Whenua Land Information New Zealand, and includes a large area (peripheral data from the original survey). The survey area is in the Mackenzie District of Canterbury, between Lake Tekapo, Lake Pukaki, Lake Ohau and Lake Ruataniwha. This area also includes Twizel Township. Data management and distribution is by Toitū Te Whenua Land Information New Zealand. Data comprises: - DEM: tif or asc tiles in NZTM2000 projection, tiled into a 1:1,000 tile layout - DSM: tif or asc tiles in NZTM2000 projection, tiled into a 1:1,000 tile layout - Point cloud: las tiles in NZTM2000 projection, tiled into a 1:1,000 tile layout Pulse density specification is 1 pulse/square metre. Vertical datum is NZVD2016.

#### Status

Progress Code

completed

#### Point Of Contact

Responsible Party

Organisation Name

Toitū Te Whenua Land Information New Zealand

Position Name

Lidar Coordination Manager

Contact Info

Contact

Phone

Telephone

Voice

04 4600110

Address

Address

Delivery Point

155 The Terrace

City

Wellington

Postal Code

6145

Country

Australia

Electronic Mail Address

customersupport@linz.govt.nz

Role

Role Code

pointOfContact

Resource Maintenance

Maintenance Information

Maintenance And Update Frequency

Maintenance Frequency Code

notPlanned

Resource Format

Format

Name

\*.xml

Version

Unknown

Descriptive Keywords

Keywords

Keyword

New Zealand

Type

Keyword Type Code

theme

Thesaurus Name

Citation

Title

ANZLIC Jurisdictions

Date

Edition

Version 2.1

Edition Date

Date

2008-10-29

Identifier

Identifier

Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-jurisdic.xml#anzlic-jurisdic>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Resource Constraints

Security Constraints

Classification

Classification Code

unclassified

Resource Constraints

Legal Constraints

Use Limitation

Copyright in this work is owned by Toitū Te Whenua Land Information New Zealand © Toitū Te Whenua Land Information New Zealand

Use Constraints

Restriction Code

copyright

Resource Constraints

Legal Constraints

Use Limitation

Released by LINZ under Creative Commons Attribution 4.0 New Zealand (CC BY 4.0) with:  
Following Attribution: "Sourced from the LINZ Data Service and licensed by Toitū Te Whenua Land Information New Zealand, for re-use under CC BY 4.0." For details see:  
<https://www.linz.govt.nz/data/licensing-and-using-data/attributing-elevation-or-aerial-imagery-data>

Use Constraints

Restriction Code

license

Spatial Representation Type Code

vector

Representative Fraction

Denominator

Integer

1000

Language

eng

Character Set

Character Set Code

utf8

Topic Category Code

elevation

Extent

EX \_ Extent

Geographic Element

EX \_ Geographic Description

Identifier

Authority

Citation

Title

ANZMet Lite Country codelist

Date

Edition

Version 1.0

Edition Date

Date

2009-03-31

Identifier

Identifier

Code

<http://asdd.ga.gov.au/asdd/profileinfo/anzlic-country.xml#Country>

Cited Responsible Party

Responsible Party

Organisation Name

ANZLIC the Spatial Information Council

Role

Role Code

custodian

Code

nzl

Extent

EX \_ Extent

Geographic Element

EX \_ Geographic Bounding Box

169.90235157634945170.49153986723925-44.46610815352456-43.99828171943868

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.linz.govt.nz/layer/99194-canterbury-mackenzie-lidar-index-tiles-2015/>

## Data Quality Info

### DQ \_ Data Quality

#### Scope

##### DQ \_ Scope

###### Level

###### Scope Code

dataset

###### Level Description

###### Scope Description

###### Other

dataset

## Lineage

### LI \_ Lineage

#### Statement

Data Acquisition: Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft on: 10 & 11 February 2015, using Aerial Surveys Optech Orion H300 LiDAR system. Survey Specification: • Scanner: Optech Orion H300 • Flying Height: 1500m AMGL • Scan Angle: ±20 degrees • Scan Frequency: 30.7Hz • Pulse Rate: 75kHz • Swath Overlap: 35% • Points Per M2: 1 Data processing: The LiDAR sensor positioning and orientation (POS) was determined using the collected GPS/IMU datasets and Applanix POSpac software. Benchmark: PUKAKI Base Station Positions: 44 14 07.433570 S 170 07 00.766050 E 483.949 Ell Height Antenna Height: For 10th 1.401M for 11th 1.485M phase center The POS data was combined with the LiDAR range files and used to generate LIDAR point clouds in NZTM and ellipsoidal heights. This process was undertaken using Optech LMS LiDAR processing software. The data was checked for completeness of coverage. The relative fit of data in the overlap between strips was also checked. The height accuracy of the ground classified LiDAR points was checked using open land-cover survey check site data collected by Sounds Surveying Ltd. This was done by calculating height differences statistics between a TIN of the LiDAR ground points and the checkpoints. The standard deviation statistic is 0.038m; a RMS of 0.045m and the average difference is 0.022m. LiDAR is relative to the control check points. The positional accuracy of the LiDAR data has been checked by overlaying Sounds Surveying Ltd surveyed data over the LiDAR data displayed coded by intensity. The data was found to fit well in position. The point cloud data was then classified with TerraSolid LiDAR processing software into ground and above ground returns using automated routines tailored to the project landcover and terrain. All product deliverables supplied in terms of NZTM map projection and NZVD2016 height datum. Classification of the point cloud followed the classification scheme below: 2 - Ground 14 - Above Ground Re-processing: In 2018 the data was reprocessed by Aerial Surveys for LINZ relative to the NZVD2016 vertical datum, and supplied as 1:1000 nominal scale (2500 720m high x 480m wide subtiles per full NZ Topo50 sheet). Lakes and large rivers were hydroflattened in the Bare Earth Digital Elevation Model. The deliverables to LINZ were: 1m gridded bare earth digital elevation model (DEM) 1m gridded digital surface model (DSM) Classified point cloud Reprocessed Classified Point Cloud Data was reclassified by LINZ and is hosted by Open Topography: the Above\_Ground (14) points were reclassified as Unassigned classification (1).

## Metadata Constraints

### Legal Constraints

#### Use Limitation

Copyright of this work is owned by Toitū Te Whenua Land Information New Zealand © LINZ

#### Use Constraints

##### Restriction Code

copyright

## Metadata Constraints

### Legal Constraints

#### Use Limitation

Released by LINZ under Creative Commons Attribution 4.0 International (CC BY 4.0) with:

Following Attribution: "Sourced from the LINZ Data Service and licensed for reuse under CC BY 4.0" For details see <https://www.linz.govt.nz/data/licensing-and-using-data/attributing-linz-data>

Use Constraints  
Restriction Code  
license