

Canterbury LiDAR 1m DEM (2016)

Metadata

File Identifier

| 0f99b229-6c2f-771a-4b90-40af1c24fc89

Language

| eng

Character Set

Character Set Code

| utf8

Hierarchy Level

Scope Code

| dataset

Hierarchy Level Name

| dataset

Contact

Responsible Party

Organisation Name

| LINZ - 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

info@linz.govt.nz

Role**Role Code**

pointOfContact

Date Stamp**Date**

2019-04-09

Metadata Standard NameANZLIC 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 LiDAR 1m DEM (2016)

Date**Abstract**

This layer contains the DEM for LiDAR data from the Canterbury Region captured between November 2016 and January 2017. - The DSM is available as layer [Canterbury LiDAR 1m DSM (2016)](<https://data.linz.govt.nz/layer/99232-canterbury-lidar-1m-dsm-2016/>). - The index tiles are available as layer [Canterbury LiDAR Index Tile (2016)](<https://data.linz.govt.nz/layer/99233-canterbury-lidar-1m-index-tiles-2016/>). - The LAS point cloud and vendor project reports are available from [OpenTopography](<http://opentopo.sdsc.edu/datasets>). Lidar was captured for Environment Canterbury Regional Council by AAM New Zealand between November 2016 and January 2017. The datasets were generated by AAM New Zealand and their subcontractors. Data management and distribution is by 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 1:2,000 tile layout Pulse density is 3.44 pulses/square metre. Vertical accuracy specification is +/- 0.20 m (95%). Horizontal accuracy specification

is +/- 1.00m (95%). Vertical datum is NZVD2016.

Status

Progress Code

completed

Point Of Contact

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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

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Restriction Code
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Resource Constraints

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Use Constraints

Restriction Code
license

Spatial Representation Type Code

grid

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

169.775108506172.64848727-45.3737256786-43.4524495596

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.linz.govt.nz/layer/99231-canterbury-lidar-1m-dem-2016/>

Data Quality Info

DQ _ Data Quality

Scope

DQ _ Scope

Level

Scope Code

dataset

Level Description

Scope Description

Other
dataset

Lineage

LI _ Lineage

Statement

Survey Specification: -Device Name: Q1560 -Half Scan Angle: 30 degrees - Laser Pulse Rate: 230 kHz -Overlap Percentage: 20% -Laser return: 1st, 2nd, 3rd and last -Laser Intensity: All Returns -File Format: ESRI ASCII Grid, LAS 1.4, ESRI Shapefile -Horizontal Datum: NZGD2000 -Vertical Datum: NZVD2016 -Map Projection: NZTM2000 -Vertical Accuracy Specification: $\pm 0.10\text{m}$ Standard Error (68% confidence level or 1 sigma) -Horizontal Accuracy Specification: $\pm 0.50\text{m}$ Standard Error (68% confidence level or 1 sigma) Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft between 7th November 2016 and 6th January 2017 using AAM New Zealand's Riegl LMS-Q1560 LiDAR systems. This area included Selwyn, Ashburton, Methven, Lake Tekapo, Lake Ruataniwha, Rolleston, Lower Rangitata, Omarama, Otematata and Twizel. Classification of the point cloud followed the classification scheme below; 1 - Default 2 - Ground 7 - Low/high points (unusable) 9 - Water Data Validation: Ground data in this volume has been compared to test points obtained by field survey and assumed to be error-free. The test points were distributed across the mapping area and located on clear open ground. Comparison was made of the field test points with elevations interpolated from measured data, and the mean difference was removed from the data. Data Classification has been manually checked and edited against any available imagery. Limitations of Data: The definition of the ground under trees may be less accurate. Ground Support: GPS base station support was sourced from Global Surveys and GeoNET CORS operating in the area. The ground check points were field surveyed by Sounds Surveying Limited, these allowed an independent assessment of the accuracy of the ALS data. Data Processing: Reduction of the ALS data proceeded without any significant problems. Laser strikes were classified into ground and non-ground points using a single algorithm across the project area. Manual checking and editing of the data classification further improved the quality of the terrain model. Overage points have been identified by use of the overage flag, all points in the overage are candidate ground points ArcGIS 10.1 Terrain Grids were derived using the Natural Neighbour interpolation. This method uses the closest triangles and applies weights to the proportionate areas from the grid cell centroid to interpolate the value. It uses known elevation data, it does not make any predictions regarding the surface and accurately depicts existing troughs and peaks in the data and supports irregular point spacing, which suits the nature LiDAR data. Breaklines have been used where required to ensure hydro flattening on the DEM products. Lakes and large rivers were hydroflattened in the Bare Earth Digital Elevation Model.

Metadata Constraints

Legal Constraints

Use Limitation

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