

Canterbury - Christchurch and Selwyn LiDAR 1m DEM (2015)

Metadata

File Identifier

55d2b26b-0795-13e7-f7e4-0698e1c02831

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**

2017-03-21

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 - Christchurch and Selwyn LiDAR 1m DEM (2015)

Date**Date****Abstract**

This layer contains the DEM for LiDAR data from the Christchurch and Selwyn areas captured in 2015. The DSM is available as layer [Canterbury - Christchurch and Selwyn LiDAR 1m DSM (2015)] (<http://data.linz.govt.nz/layer/3588>). The index tiles are available as layer [Canterbury - Christchurch and Selwyn LiDAR Index Tiles (2015)](<http://data.linz.govt.nz/layer/3578>). The LAS point cloud and vendor project reports are available from [OpenTopography] (<https://portal.opentopography.org/datasets?loc=New%20Zealand>). Lidar was captured for Environment Canterbury Regional Council by AAM between 5 October and 7 November 2015. The datasets were generated by AAM and their subcontractors. The survey area includes Christchurch City and parts of the Selwyn district. 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

Planned pulse density is 4 pulses/square metre. Vertical accuracy specification is +/- 0.20m (95%). Horizontal accuracy specification is +/- 1.00m (95%). 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

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customersupport@linz.govt.nz

Role

Role Code

pointOfContact

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

Descriptive Keywords

Keywords

Keyword

LAND-Topography

Keyword

LAND-Cover

Type

Keyword Type Code

theme

Thesaurus Name

Citation

Title

ANZLIC Search Words

Date

Edition

Version 2.1

Edition Date

Date

2008-05-16

Identifier

Identifier
Code

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

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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Access Constraints

Restriction Code

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Spatial Representation Type Code

grid

Representative Fraction

Denominator

Integer

1000

Language

eng

Character Set

Character Set Code

utf8

Topic Category Code

elevation

Topic Category Code

imageryBaseMapsEarthCover

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

171.657740799172.809757374-43.9132586936-43.2630076584

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.linz.govt.nz/layer/53587-canterbury-christchurch-and-selwyn-lidar-1m-dem-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 in October and November 2015, using AAM's Riegl LMS-Q1560 and Leica ALS60 LiDAR systems. Survey Specification: Selwyn: □ Device Name Q1560 □ Half Scan Angle 29 degrees □ Laser Pulse Rate 800 kHz □ Overlap Percentage 20% □ Average Point Spacing 3.1 pts/m2 □ Laser Footprint 0.47m Christchurch: □ Device Name: ALS60 □ Half Scan Angle: 12.5 degrees □ Laser Pulse Rate: 145 kHz □ Overlap Percentage: 20% □ Minimum Point Density: 4 pts/m2 □ Laser Return Types: 1st, 2nd, 3rd and last □ Laser Intensity All returns □ File Format: ESRI ASCII Grid, ESRI Shapefile, LAS 1.2 □ Horizontal Datum: NZGD2000 □ Vertical Datum: NZVD2016 □ Map Projection: NZTM □ Vertical Accuracy Specification: ±0.10m Standard Error (68% confidence level or 1 sigma) □ Horizontal Accuracy Specification: ±0.50m Standard Error (68% confidence level or 1 sigma) Data processing: 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. Further Processing: ArcGIS 10.1 Terrain and Surface Grids were derived using the Natural Neighbor 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. GPS base station support was sourced from Global Surveys CORS operating in Christchurch. The ground check points were field surveyed by Sounds Surveying Limited, these allowed an independent assessment of the accuracy of the ALS data.. All product deliverables were initially supplied in terms of NZTM and Lyttelton 1937 height datum. Classification of the point cloud followed the classification scheme below: 0 - Created, never classified 1 - Unclassified 2 - Ground 7 - Low/high points 9 - Water Re-processing: In 2016 the data was reprocessed by AAM 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 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

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