

Canterbury - Rangiora LiDAR 1m DEM (2014)

Metadata

File Identifier

6df145db-360d-ab28-72cd-1254b63a2baa

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**

2017-03-15

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 - Rangiora LiDAR 1m DEM (2014)

Date**Date****Abstract**

This layer contains the DEM for LiDAR data from the Rangiora area captured in 2014. The DSM is available as layer [Canterbury - Rangiora LiDAR 1m DSM (2014)] (<http://data.linz.govt.nz/layer/3553>). The index tiles are available as layer [Canterbury - Rangiora LiDAR Index Tiles (2014)] (<http://data.linz.govt.nz/layer/3573>). The LAS point cloud and vendor project reports are available from [OpenTopography](<http://opentopo.sdsc.edu/datasets>). Lidar was captured for Waimakariri District Council and Environment Canterbury Regional Council by Aerial Surveys in March – June 2014. The datasets were generated by Aerial Surveys and their subcontractors. The survey area includes the Rangiora township area and the lower Ashley, Eyre, and Waimakariri river channels. 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 1:1,000 tile layout Planned pulse density is 1 pulse/square metre. Vertical datum is NZVD2016.

Status

Progress Code

completed

Point Of Contact

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Organisation Name

LINZ - Land Information New Zealand

Position Name

Lidar Coordination Manager

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info@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

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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

172.147783075172.751740765-43.4549299316-43.1894068086

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.linz.govt.nz/layer/53552-canterbury-rangiora-lidar-1m-dem-2014/>

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: 14th,26th, 27th, 28th March , 1st, 16th May and 23rd June 2014, using Aerial Surveys Optech ALTM 3100EA LiDAR system. Survey Specification: • Scanner: Optech ALTM 3100EA • Flying Height: 950m AMGL • Scan Angle: ±23.5 degrees • Scan Frequency: 42.4Hz • Pulse Rate: 70kHz • Swath Overlap: 50% • Swath Width: 825.36m • 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: GSAM (Amberly) OWNER: Global Surveys Base Station Position: 43 09 06.47086 S 172 43 45.04334 E 66.7470 Ell Height Antenna Height: 0.00 Phase centre Benchmark: Based on AA3A Darfield VRS OWNER: Geosystems Base Station Position: 43 29 04.74696 S 172 06 09.68624 E 216.517 Ell Height Antenna Height: 0.00 Phase centre 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 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 0.047m; a RMS of 0.076m and the average difference is -0.049m. Sounds Surveying Ltd field surveyed check sites that were used to verify the accuracy of the processed ground dataset. 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 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 2 - Ground 14 - Above_Ground Re-processing: In 2016 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 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 Data hosted by OpenTopography was re-classified: the Above_Ground (14) points were reclassified as Unassigned classification (1)

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