

Nelson LiDAR 1m DEM (2021)

Metadata

File Identifier

90611966-b2f9-e010-3cc8-a3d8aa3dafc6

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

6011

Country

New Zealand

Electronic Mail Address

customersupport@linz.govt.nz

Role

Role Code

pointOfContact

Date Stamp

Date

2021-12-14

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

Nelson LiDAR 1m DEM (2021)

Date

Abstract

This layer contains the DEM for LiDAR data in the Nelson Region, including Nelson City as well as the surrounding area, captured in 2021. - The DSM is available as layer [Nelson LiDAR 1m DSM (2021)](<https://data.linz.govt.nz/layer/106842>). - The index tiles are available as layer [Nelson LiDAR Index Tiles (2021)](<https://data.linz.govt.nz/layer/106835>). - The LAS point cloud and vendor project reports are available from [OpenTopography](<https://portal.opentopography.org/datasets?loc=New%20Zealand>). LiDAR was captured for Nelson City Council by Aerial Surveys from 10 January to 24 June 2021. These datasets were generated by Aerial Surveys and their subcontractors. 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 at a minimum of 8 pulses/square metre. Vertical Accuracy Specification is +/- 0.2m (95%). Horizontal Accuracy Specification is +/- 1.0m (95%). Vertical datum is NZVD2016.

Status

Progress Code

completed

Point Of Contact

Responsible Party

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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

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Use Constraints

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

173.17201153307468173.6056636284123-41.39996598542979-41.048551669612884

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.linz.govt.nz/layer/106837-nelson-lidar-1m-dem-2021/>

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 between 10 January to 24 June 2021, using Aerial Surveys Optech Orion Galaxy PRIME system. Survey Specification: - Scanner: Optech Galaxy PRIME - Flying Height: 1800 m AMGL - Scan Angle: ±19 degrees - Scan Frequency: 88.5 Hz - Pulse Rate: 400 kHz - Swath Overlap: 35% - Swath Points Per m2: 8 Data Processing: The LiDAR sensor positioning and orientation (POS) was determined using the collected GPS/IMU datasets and Applanix POSPac software. Base Station Positions: PP-RTX 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 0.04 m; a RMS of 0.04 m and the average difference is 0.004 m. 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. In some densely vegetated gullies, there may be locations where the 2015 LiDAR survey achieved better penetration through the dense vegetation ('Nelson and Tasman LiDAR 1m DEM (2008-2015)' layer (<https://data.linz.govt.nz/layer/95817>)). All product deliverables supplied in terms of NZTM map projection and NZVD2016 height datum. Classification of the point cloud followed the classification scheme below: 1 - Unclassified 2 - Ground 3 - Low Vegetation 4 - Medium Vegetation 5 - High Vegetation 6 - Buildings 7 - Low Noise 9 - Water 18 - High Noise 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

Metadata Constraints

Legal Constraints

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