

# Manawatu-Whanganui - Palmerston North LiDAR 1m DSM (2018)

## Metadata

### File Identifier

782F743D-AD3F-410D-ABB2-672691833ED2

### 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**

2020-03-04

**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**

Manawatu-Whanganui - Palmerston North LiDAR 1m DSM (2018)

**Date****Abstract**

This layer contains the DSM for LiDAR data for Palmerston North, Ashhurst, Longburn and the surrounding area in 2018. - The DEM is available as layer [Manawatu-Whanganui - Palmerston North LiDAR 1m DEM] (<https://data.linz.govt.nz/layer/104502>). - The index tiles are available as layer [Manawatu-Whanganui - Palmerston North LiDAR 1m Index Tiles] (<https://data.linz.govt.nz/layer/104504>). - The LAS point cloud and vendor project reports are available from [OpenTopography](<http://opentopo.sdsc.edu/datasets>). LiDAR was captured for Palmerston North City Council by AAM New Zealand from 29 August to 28 September 2018. These 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 1:1,000 tile layout Pulse density specification is at a minimum of 8 pulses/square metre. Vertical Accuracy Specification is +/- 0.1m (95%) Horizontal Accuracy Specification is +/- 0.5m (95%) Vertical datum is NZVD2016

## Status

Progress Code  
completed

## Point Of 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

## 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 Palmerston North City Council ©  
Palmerston North City Council

#### 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 Palmerston North City Council, 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

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

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 between 29th August to 28th September 2018 using AAM New Zealand's Optech Orion H300 LiDAR system. Survey Specification: - Scanner: Optech Orion H300 - Half Scan Angle: ±15 degrees - Laser Pulse Rate: 250kHz - Laser Pulse Mode: Multipulse - Laser Return: 1st, 2nd, 3rd... 4th and last - File Format: ESRI ASCII Grid, LAS 1.3, ESRI Shapefile - Horizontal Datum: NZGD2000 - Vertical Datum: NZVD2016 - Map Projection: NZTM2000 - Vertical Accuracy Specification: ±0.10m RMS - Horizontal Accuracy Specification: ±0.50m RMS Airborne Laser Scanner (ALS) data was

acquired from a fixed wing aircraft between 29th August to 28th September 2018 using AAM New Zealand's Optech Orion H300 LiDAR system. This area includes city of Palmerston North, Ashhurst, Longburn and the surrounding area. 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, Structures 7 - Low/High Points 9 - Water 10 - Bridge Rail (10) points were reclassified by LINZ as Bridges (17) per survey reference before providing the classified point cloud data to Open Topography. Data Processing: Reduction of the LiDAR data proceeded without any significant problems. Classification of the point clouds is to Level 3, with reference to ICSM LiDAR Specifications for NZ. Classification accuracy required: 99% for ground points. The Digital Elevation (DEM) and Digital Surface Model (DSM) were derived using a point to TIN and TIN to Raster process, using Linear interpolation. Hydro flattening was undertaken in the DEM over non-tidal water bodies with surface area greater than 10,000 sq m, and non-tidal water courses greater than 30m nominal width. The withheld flag was applied to the overage data (overlapping points between flight lines), this is an automated process using LASTools. Data Validation: Ground data in this volume has been compared to test points obtained by field survey and assumed to be error-free. Data classification has been manually checked and edited against available imagery. 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

#### Use Limitation

Copyright of this work is owned by 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