Canterbury - Timaru Rivers LiDAR 1m DEM (2014)

- Metadata
  - File Identifier
    - 7f7d3090-3965-47d5-0594-ff80fc9ca3a2
  - 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 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 - Timaru Rivers LiDAR 1m DEM (2014)

Date

Date

Abstract
This layer contains the DEM for LiDAR data from the Timaru river areas captured in 2014. The DSM is available as layer [Canterbury - Timaru Rivers LiDAR 1m DSM (2014)](http://data.linz.govt.nz/layer/3555). The index tiles are available as layer [Canterbury - Timaru Rivers LiDAR Index Tiles (2014)](http://data.linz.govt.nz/layer/3574). 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 Aerial Surveys in July and August 2014. The datasets were generated by Aerial Surveys and their subcontractors. The survey area includes the Geraldine and Temuka township areas and the lower Rangitata, Orari, and Opihi river corridors. 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
Responsible Party
Organisation Name
LINZ - Land Information New Zealand

Position Name
Lidar Coordination Manager

- Contact Info
  - Contact
    - Phone
      - Telephone
        - Voice
          - 04 4600110
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        - Country
          - New Zealand
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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

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Security Constraints
Classification
Classification Code

unclassified

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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

171.154200815171.504592394-44.2931107095-43.8834727953

Distribution Info
Distribution
Transfer Options
Digital Transfer Options
On Line
Online Resource
Linkage
URL
https://data.linz.govt.nz/layer/53554-canterbury-timaru-rivers-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 from 7 July through 4 August 2014, using Aerial Surveys' Optech ALTM 3100EA LiDAR system. Survey Specification: Scanner: Optech ALTM 3100EA Flying height: 1250m AMGL Scan Angle: +/- 14.9 degrees Scan Frequency: 47.3Hz Pulse Rate 70kHz Swath Overlap: 35% Points Per Sqm: 1.24 Data processing: The LiDAR sensor positioning and orientation (POS) was determined using the collected GPS/IMU datasets and Applanix POSPac software. Benchmarks: 07/07/14 A and B ABGF (linz) Base Station Positions: 44 10 14.75312 S 171 15 59.36734 E 62.761 Ell Height Antenna Height: 1.827 Phase Center Benchmarks: 15/07/14 A ABGF (linz) Base Station Positions: 44 10 14.75312 S 171 15 59.36734 E 62.761 Ell Height Antenna Height: 1.787 Phase Center Benchmarks: 17/07/14 A ABGF (linz) Base Station Positions: 44 10 14.75312 S 171 15 59.36734 E 62.761 Ell Height Antenna Height: 1.745 Phase Center Benchmarks: 08/08/14 A ASTU Timaru Airport Base Station Positions: 44 18 12.983481 S 171 13 36.057899 E 34.1298 Ell Height Antenna Height: 1.516 Phase Center 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 0.047 m; a RMS of 0.054m and the average difference is -0.012m. 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 withTerraSolid 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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