Northland - Whangarei Heads LiDAR 1m DSM (2016)

- Metadata
  - File Identifier
    - a1de77cf-b7d7-f06c-b6b0-fa417159194f
  - 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
2019-12-09

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
Northland - Whangarei Heads LiDAR 1m DSM (2016)

Date

Abstract
This layer contains the DSM for LiDAR data in the Northland Region surronding Whangarei Heads captured in 2016. - The DEM is available as layer [Northland - Whangarei Heads LiDAR 1m DEM (2016)](https://data.linz.govt.nz/layer/104236). - The index tiles are available as layer [Northland - Whangarei Heads LiDAR Index Tiles (2016)](https://data.linz.govt.nz/layer/104238). - The LAS point cloud and vendor project reports are available from [OpenTopography] (https://portal.opentopography.org/datasets?loc=New%20Zealand). LiDAR was captured for Toitū Te Whenua Land Information New Zealand by Aerial Surveys in November 2016. 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 2 pulses/square metre. 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
Phone

- Telephone
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    - 04 4600110
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    - Country
      - New Zealand
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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

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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
174.38004628284432174.5947547944112-35.86238625957122-35.720853221054234

Distribution Info
Distribution
Transfer Options
Digital Transfer Options
On Line
Online Resource
Linkage
URL
https://data.linz.govt.nz/layer/104237-northland-whangarei-heads-lidar-1m-dsm-2016/

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 21 and 22 November 2016, using Aerial Surveys Optech Orion H300 LiDAR system. Survey Specification: • Scanner: Optech Orion H300 • Flying Height: 1475 m AMGL • Scan Angle: ±20 degrees • Scan Frequency: 45.0Hz • Pulse Rate: 1750kHz • Swath Overlap: 30% • Points Per M2: 2 Data Processing: The LiDAR sensor positioning and orientation (POS) was determined using the collected GPS/IMU datasets and Applanix POSPac software. Base Station Position: WHNG owned by LINZ -35 48 13.577724 S 174 18 52.4394 E 172.775 Ell Height 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 0.019 m; a RMS of 0.038 m and the average difference is -0.03 m. 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 supplied in terms of NZTM map projection and NZVD2016 height datum. Classification of the point cloud followed the classification scheme below: 2 - Ground 14 - Above Ground Above_Ground (14) points was reclassified by LINZ as Unassigned classification (1) before providing the classified point cloud data to Open Topography. There are no (7) Noise, (9) Water and (12) Overlap points in the data even though these were referenced in the report 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

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