West Coast 0.3m Rural Aerial Photos Index Tiles (2016-2017)

- Metadata
  - File Identifier
    - f6217265-d254-53d5-cafe-3ebbc5eec0c4
  - 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
        - National Imagery 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

2018-07-03

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

West Coast 0.3m Rural Aerial Photos Index Tiles (2016-2017)

Date

Abstract

Index Tiles ONLY, for actual orthophotos see layer [West Coast 0.3m Rural Aerial Photos (2016-2017)](http://data.linz.govt.nz/layer/95552) Orthophotography in the West Coast Region taken in the flying season (summer period) 2016 -17. Coverage is in the Westland District. Imagery was captured for the ‘West Coast Regional Council’ by Aerial Surveys Ltd, Unit A1, 8 Saturn Place, Albany,0632, New Zealand. Data comprises: •1,261 ortho-rectified RGB GeoTIFF images in NZTM projection, tiled into the LINZ Standard 1:5,000 tile layout •Tile layout in NZTM projection containing relevant information. The supplied imagery is in terms of New Zealand Transverse Mercator (NZTM) map projection. The products are tiled into NZTopo50 1:5,000 tiles. Please refer to the supplied tile layout shape file for specific details, naming conventions, etc. Imagery supplied as 30cm pixel resolution (0.3m GSD), 3-band (RGB) uncompressed GeoTIFF. The final spatial accuracy is ±0.6 m @ 68% confidence level in clear open spaces (2 sigma) over area of interest. ±2.0 m or better in the very steep terrain areas of the Southern Alps.

Status

Progress Code

completed

Point Of Contact

Responsible Party

Organisation Name

LINZ - Land Information New Zealand

Position Name

National Imagery Manager

Contact Info

Contact

Phone

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- Role
  - Role Code
    - pointOfContact

Resource Format
- Format
  - Name
    - *.xml
  - Version
    - Unknown

Resource Constraints
- Security Constraints
  - Classification
    - Classification Code
      - unclassified

Resource Constraints
- Legal Constraints
  - Use Limitation
    - Copyright of this work is owned by West Coast Regional Council © West Coast Regional Council
  - Use Constraints
    - Restriction Code
      - copyright

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- Legal Constraints
  - Use Limitation
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Use Constraints
Restriction Code
license

Spatial Representation Type Code
grid

Representative Fraction
Denominator
Integer
5000

Language
eng

Character Set
Character Set Code
utf8

Topic Category Code
imageryBaseMapsEarthCover

Extent
EX _ Extent
Geographic Element
EX _ Geographic Bounding Box
168.44010444171.856166513-44.1499937242-42.4879938751

Distribution Info
Distribution
Transfer Options
Digital Transfer Options
On Line
Online Resource
Linkage
URL
https://data.linz.govt.nz/layer/88089-west-coast-03m-rural-aerial-photos-index-tiles-2016-2017/

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: The aerial photography for this project was captured within the 2016/17 flying season (September 2016 – April 2017) on the following dates: 8th, 16th, 17th, 23rd, 27th February, 8th, 9th March 2017. All photography was captured using Vexcel's digital UCE camera and flown at: 0.3 m GSD: 18928 ft (5769 m) flying height Camera Lens: 100 mm Sun Angle Minimum of +35 degrees Data Processing All aspects of the data processing from imagery processing to DTM creation and ortho production and product deliverables was undertaken in-house by Aerial Surveys staff & Cyient. Map Projection All spatial data for this

project provided in terms of New Zealand Transverse Mercator (NZTM) map projection. The datum is New Zealand Geodetic Datum 2000. The height datum is orthometric Lyttelton 1937 (sea level). Image Processing and Aerial Triangulation All imagery has gone through QA checks ensuring there is no cloud cover and cloud shadow. During aerial acquisition the aircraft on-board GPS navigation data and ground base station data collected and post processed. Imagery processed to level 3 and checked for colour correctness/radiometry and even tonal balance across each project area. The aerial triangulation brings together the GPS data and imagery using a two part process which stitches the imagery together using tie point matching for the relative orientation phase and observing ground control points for the absolute orientation phase. LINZ control, 8th order horizontal and 4th order vertical and other existing control from Aerial Surveys control data base were used to strengthen the block adjustment or as independent checks on position during final QA of the ortho imagery. A final report is generated to check RMSE values are within specification. DTM Creation The DTM creation was collected from stereo imagery using photogrammetric techniques, largely automated pixel matching and auto-correlation process that creates mass points of the terrain surface. The final DTM took the form of mass points. A Triangulated Irregular Network (TIN) was then created and used for the ortho rectification process. DTM Accuracy: ±0.8 m @ 68% confidence level in clear open areas (1 sigma) RGB and RGBI Ortho Rectification Process OOrtho rectification is the process of removing (from the image) the effects of camera tip/tilt and displacement caused by terrain relief. During this process each frame is 'draped' over the terrain model and the photograph then becomes 'scaled' and 'levelled' in terms of true ground coordinates. The generation of seamlines between frames follow natural physical features such as ridges, valleys, roads and rivers. The seamlines are used for the final ortho mosaic that stitches the imagery together using feather mosaicking techniques. The ortho imagery is then extracted aligned to LINZ 1:5,000 sheet tile layout. The ortho imagery was processed to RGBI to ensure a consistent dataset is maintained for the RGB and RGBI ortho tiles including the same seamlines. Minimal colour adjustment was undertaken in the RGB, generally over water areas and along coastal foreshore for colour matching and to minimise glare.

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