

Hamilton 0.1m Urban Aerial Photos (2015)

Metadata

File Identifier

| 2e2bec74-e0e1-073a-e7aa-3a095753e14b

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**

2016-05-16

Metadata Standard NameANZLIC 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**

Hamilton 0.1m Urban Aerial Photos (2015)

Date**Abstract**

Orthophotography in the Hamilton City Council area taken in March 2015. Coverage is of the Hamilton City urban area. Imagery was captured for the 'Hamilton City Council' by Aerial Surveys Ltd, Unit A1, 8 Saturn Place, Albany, 0632, New Zealand. Data comprises:

- 492 ortho-rectified RGB GeoTIFF images in NZTM projection, tiled into the LINZ Standard 1:1,000 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 1:1,000 tiles. Please refer to the supplied tile layout shape file for specific details, naming conventions, etc. Imagery supplied as 10cm pixel resolution (0.1m GSD), 3-band (RGB) uncompressed GeoTIFF. The final spatial accuracy is $\pm 0.2\text{m}$ @ 95% confidence level in clear open spaces (2 sigma). Index tiles for this dataset are available as layer [Hamilton 0.1m Urban Aerial Photos Index Tiles (2015)] (<http://data.linz.govt.nz/layer/3365>)

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

Telephone

Voice

04 4600110

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155 The Terrace

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Country

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Electronic Mail Address

info@linz.govt.nz

Role

Role Code

pointOfContact

Resource Format

Format

Name

*.xml

Version

Unknown

Resource Constraints

Security Constraints

Classification

Classification Code

unclassified

Resource Constraints

Legal Constraints

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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

imageryBaseMapsEarthCover

Extent

EX _ Extent

Geographic Element

EX _ Geographic Bounding Box

175.177361421175.360151918-37.8551303202-37.6818197723

Distribution Info

Distribution

Transfer Options

Digital Transfer Options

On Line

Online Resource

Linkage

URL

<https://data.linz.govt.nz/layer/53398-hamilton-01m-urban-aerial-photos-2015/>

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 on 20 March 2015. All photography was captured using Vexcel's digital UCLp camera and flown at 3850ft (1173m) flying height. 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. Map Projection: All spatial data for this project provided in terms of New Zealand Transverse Mercator 2000 map projection (NZTM2000) . The datum is New Zealand Geodetic Datum 2000 (NZGD2000). The height datum is orthometric Auckland 1946 (sea level). The products are tiled into NZTopo50 map sheet tiles as noted below. 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. A final report is generated to check RMSE values are within specification. DTM Source: The digital terrain model used for this project was derived from 2008 and 2010 LiDAR DTM data. Outside the existing data we have collected a new DTM from the stereo imagery. The DTM data is merged together seamlessly and accuracy is checked to meet the ortho imagery specification. RGB and Ortho Rectification Process: Ortho 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 1:1000 sheet tile layout. Spatial Accuracy: $\pm 0.2\text{m}$ @ 95% confidence level in clear open spaces (2 sigma)

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