

# Canterbury 0.4m Rural Aerial Photos Index Tiles (2013-2014)

## Title

Canterbury 0.4m Rural Aerial Photos Index Tiles (2013-14)

## Creator

LINZ - Land Information New Zealand

## Date

2014

## Description

Index Tiles ONLY, for actual orthophotos see layer [Canterbury 0.4m Rural Aerial Photos (2013-2014)](<http://data.linz.govt.nz/layer/2117>) Orthophotography for the Canterbury region taken in the flying season (summer period) 2013 - 2014. Coverage encompassed the Waimate, Mackenzie, and Waitaki council areas. Imagery was captured for the 'Environment Canterbury' by Aerial Surveys Ltd, Unit A1, 8 Saturn Place, Albany, 0632, New Zealand. Data comprises:

- 2,067 x ortho-rectified RGBi 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 40cm pixel resolution (0.4m GSD), 3-band (RGB) uncompressed GeoTIFF. The final spatial accuracy is +/-0.6m.

## Source

The project area covered the Waimate DC, Mackenzie DC & Waitaki DC districts. The Aerial Surveys project number for this project is PGRM2458. Digital imagery was collected between 29 October 2013 - 27 March 2014, using Aerial Survey's Microsoft UCLp large-format digital cameras. The imagery was collected flying at 4,700 metres above ground. 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 (NZTM) map projection. The datum is New Zealand Geodetic Datum 2000. The height datum is orthometric Lyttleton 1937 (sea level). The products are tiled into NZTopo50 map sheet tiles as noted below. Image Processing & 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 & ground base station data collected & post processed. Imagery processed to level3 and checked for colour correctness/radiometry and even tonal balance across each project area. The aerial triangulation brings together the GPS data & imagery using a two part process which stitches the imagery together using tie point matching for the relative orientation phase & observing ground control points for the absolute orientation phase. A final report is generated to check RMSE values are within specification. Ortho Specification: Ortho rectification is the process of removing (from the image) the effects of camera tip/tilt & displacement caused by terrain relief. During this process each frame is 'draped' over the terrain model & the photograph then becomes 'scaled' & '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 along with the final extraction of the ortho image tiles. The 0.4m GSD imagery processed as RGBI with RGB extracted after the final ortho mosaic process. Some manual colour adjustment made over coastal sea areas in the RGB.

Coverage

-45.100200596 169.420066306 -43.6074255181 171.297961227

Identifier

<https://data.linz.govt.nz/layer/52116-canterbury-04m-rural-aerial-photos-index-tiles-2013-2014/>

Type

grid

Language

eng

Subject

imageryBaseMapsEarthCover