

Canterbury - Banks Peninsula LiDAR 1m Index Tiles (2018-2019)

Title
Canterbury - Banks Peninsula LiDAR 1m Index Tiles (2018-2019)

Creator
LINZ - Land Information New Zealand

Date
2018-07-18

Description
This layer contains the Index Tiles for LiDAR data for Banks Peninsula captured between 2018 and 2019. - The DEM is available as layer [Canterbury - Banks Peninsula LiDAR 1m DEM (2018-2019)] (<https://data.linz.govt.nz/layer/105027>). - The DSM are available as layer [Canterbury - Banks Peninsula LiDAR 1m DSM (2018-2019)](<https://data.linz.govt.nz/layer/105032>). - The LAS point cloud and vendor project reports are available from [OpenTopography](<http://opentopo.sdsc.edu/datasets>). LiDAR was captured for Environment Canterbury Regional Council by Aerial Surveys between July 2018 and February 2019. These datasets were generated by Aerial Surveys and their subcontractors. 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 Pulse density specification is at a minimum of 2 pulses/square metre. Vertical datum is NZVD2016

Source
Data Acquisition: Airborne Laser Scanner (ALS) data was acquired from a fixed wing aircraft on: 18, 19, 20 July, 12, 14 August, 11 November, 17 December 2018, 30 January, 2, 8, 9, 10 February 2019, using Aerial Surveys Optech Orion H300 + Optech Prime Galaxy LiDAR systems. Please refer to survey reports for survey specifications. Data Processing: The LiDAR sensor positioning and orientation (POS) was determined using the collected GPS/IMU datasets and Applanix POSpac software. Base Station Positions: PPRTX virtual base station service. 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 0.028 m; a RMS of 0.028 m and the average difference is 0.004 m. LiDAR is relative to the control check points. 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 with TerraSolid 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 vertical datum. Classification of the point cloud followed the classification scheme below: 1 - Unclassified 2 - Ground 7 - Noise 9 - Water 12 - Overlap Above_Ground (14) points was reclassified by LINZ as Unassigned classification (1) before providing the classified point cloud data to Open Topography. Waterbodies 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

Coverage
-43.9096506058 172.553307724 -43.5983440977 173.137195198

Identifier
<https://data.linz.govt.nz/layer/105033-canterbury-banks-peninsula-lidar-1m-index-tiles-2018-2019/>

Type
vector

Language
eng

Subject
New Zealand

Subject
elevation