Data Supply Metadata s4

Project	Christchurch LiDAR March 2011	11.010
Sub Area	Priority 1 and 2 March 2011 - CCC	

Summary of Data	 This dataset is the fourth of a series that NZ Aerial Mapping (NZAM) is producing to support the response to the 22 February 2011 earthquake in Canterbury. It is a collection of products created from airborne LiDAR point cloud datasets. The data supply includes the following products: Project extent data 1-dimension DEM difference model
	The extent of coverage of this a dataset is shown in a map in Appendix A.

Data	The Christchurch City Council 2003 (CCC2003) ground LiDAR point cloud was supplied to NZAM as a thinned dataset of mE mN O values. This was reprojected from NZMG into NZTM, using the LINZ distortion model for the datum transformation.
Processing	As the point spacing of the 2003 data is sparse compared to the March 2011 dataset a grid spacing of 2m was used during the creation of DEM. To create a compatible dataset a 2m grid spacing DEM was also generated from the March 2011 LiDAR dataset.

	The geodata is all in terms of New Zealand Transverse Mercator map projection. The data is presented in the following series of folders.
Data Supply	 DifferenceModel DEM MAR2011CCC2003 Layout
	The <i>Layout</i> folder has support files in it including a tile layout, project extent and difference model extent.
	The folder <i>DifferenceModel</i> has a subdirectory that contains the 1-n dimension model created by subtracting the CCC2003 LiDAR DEM from the MAR2011 LiDAR DEM. The extent of this difference dataset only covers the area where there is overlap between these two input datasets. This area is depicted in the extent of coverage map included in Appendix A.
	If you have requirements for the data in other file formats, map projections please contact NZAM.

	Users of this data should be aware that a project specific separation model was used as the basis of the ellipsoid to orthometric height conversions the production of the CCC2003 dataset. It was the best available model at the time the dataset was created. The current best available model is NZGeoid09. This model was used when producing the MAR2011 dataset. The differences between the two separation models are unknown to us, and may be a source of error.
Special Note	Considerable professional judgement is required when using the difference products. Consideration needs to be made for landuse and landcover changes that have occurred between the times that the datasets were collected. To give them context they should be viewed in conjunction with aerial photography. The <i>NZAM 10cm GSD 20110224 orthophotography</i> dataset provides imagery context a week prior to when the March 2011 LiDAR was collected. Consideration also needs to be made for the accuracy and modelling characteristics of LiDAR data.

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