

## DIGITAL DATA: DOCUMENTATION

**CHRISTCHURCH CITY COUNCIL**

**CHRISTCHURCH AIRBORNE LASER SCANNING SURVEY**

**VOLUME 210013702NOB**

### **Summary Data Description**

Airborne laser scanning was captured over Christchurch and the adjoining Wiamakariri River between 6<sup>th</sup> to 9<sup>th</sup> of July 2003.

The data contained within this volume relates to the area north of the Christchurch data previously supplied.

Six contour files from Volume 210013701NOB are also supplied within this volume.

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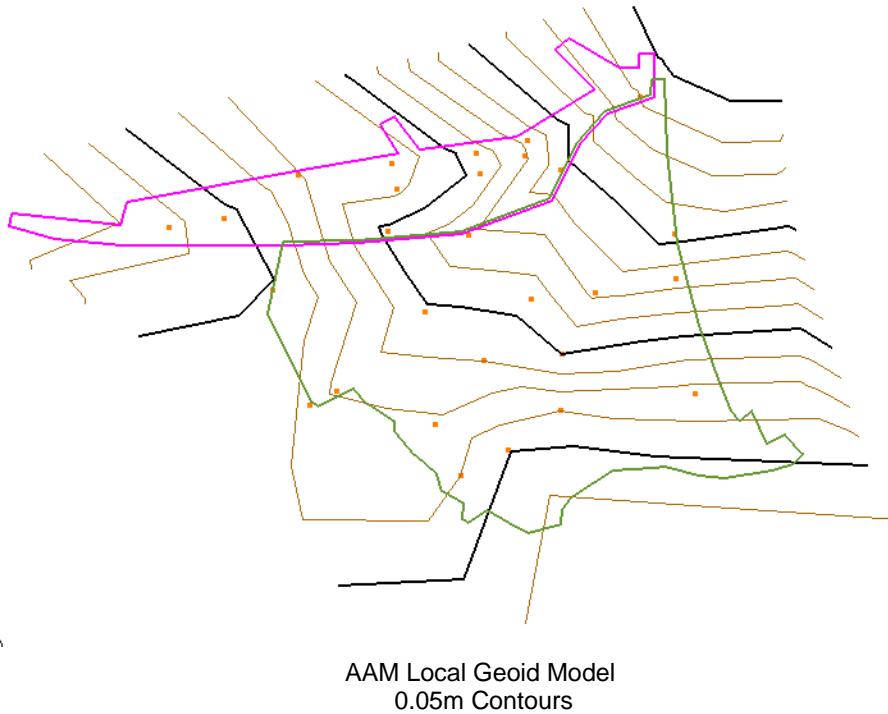
## 1. PROJECT REPORT

**Acquisition:** Airborne Laser Scanning (ALS) data was acquired from a fixed wing aircraft between 6<sup>th</sup> to 9<sup>th</sup> July 2003. Delays in acquiring the data were due to low cloud over the project area.

**Ground Support:** GPS base station support was provided by the client without incident. The ground check points acquired by the client allowed an assessment of the accuracy of the ALS data.

**Data Processing:** Reduction of the ALS data proceeded without any significant problems. Laser strikes were classified into ground and non-ground points using a single algorithm across the project area. Manual checking and editing of the data classification against low-resolution intensity imagery created by AAM further improved the quality of the terrain model.

**Further Processing:** A local geoid model was created covering the C.C.C and Waimakariri River project areas. The geoid separation between the ellipsoidal and local orthometric heights supplied was computed with a resulting N value. The geoid model was then derived using the N value separation and compared to the International geoid model EGM96 as used by the Concord Conversion program. The EGM96 geoid model is a generalised geoid model with minor variations existing with local project areas. Graphics indicated the EGM96 model with a gentle north/south slope. This was expected, as EGM96 is an estimated geoid model with long wavelength corrections. The local geoid is similar, with what appears to be a ridgeline running in a northeast to southwest direction. The outer extents of the geoid model were then extrapolated to cover the project area. The geoid model has been supplied as a dxf file. All data supplied within this volume has been adjusted to the AAMHatch geoid model.



A 2m gridded data set was derived from a triangulated surface model using every classified ground laser strike.

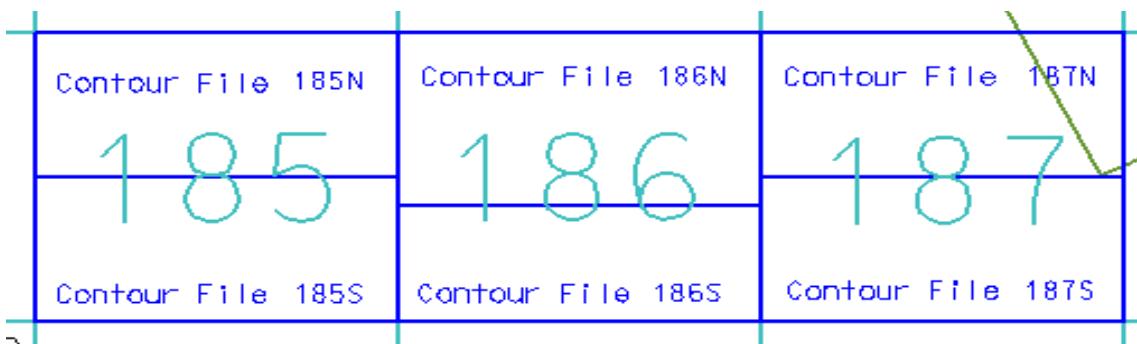
A “built layer \ canopy model” was formed from the non-ground strikes by selecting all laser strikes 2m above the ground.

The intensity value attributed each xyz laser point was used to derive a low resolution grey scaled image of the project area. Intensity data was also supplied in digital form being xyzi.

Contours have been derived at 0.5m intervals as Arc GIS 3D line strings.

The tile layout has been supplied in dxf format.

Tiles CCC185, CCC186 and CCC187 have been split into north\south areas.



Note: The contours supplied on this volume are designated “GENERALISED CONTOURS” only. They are compiled from a rigorous triangulation of the supplied data with “cleaning” filter applied removing ground noise. Minimal cartographic license has been applied. They are intended to provide a visual representation of the terrain data, and are not suitable to be used as a cartographic map.

Video data been supplied on VHS tape.

**Data Presentation:** The data provided on this volume has been supplied in accordance with a specification agreed with the primary client. Subsequent users experiencing difficulties in handling the data should please contact AAMHatch to arrange a more appropriate data presentation.

**Further Issues:** This data set also contains tiles CCC185-187 from Volume 210013701NOB

## 2. DATA INSTALLATION

Data format : Space delimited ASCII, ArcGis, VHS tape  
Number & type of media : 2 , 4.8Gig DVD ROM  
Media format : DVD-ROM format  
Number of files in dataset : 686 and 1 readme.pdf  
Data formatted on : 17.12.2003  
Disk volume : 210013702NOB  
AAMHatch Job Managers : Mr. D. Jonas 07 3891 1033  
Mr. B. O'Hagan 07 3891 1033

### README FILE

This document (README.PDF) is provided as an Acrobat file in this volume.

To open the file, double click on the PDF file to activate Acrobat Reader Software.  
Adobe Acrobat Reader may be downloaded from:

<http://www.adobe.com/products/acrobat/readstep2.html>

### REVISION HISTORY

Volumes previously issued under this project include:

Volume	Date	Data Title	Contents
210013701nob	01.12.03	Christchurch Airborne Laser Scanning Survey	Contours, ground and non ground data points and grey scale image.

### FILE SIZES AND NAMES

Data is provided in tiles 2km by 2km to the following file naming convention:

eg. CCC012.grd      CCC- Christchurch City Council  
          001 - tile sheet layout reference number  
          .grd - laser returns , classified as "ground"  
          .non - laser returns , classified as "non-ground"  
          .thn - thinned ground laser returns  
          .blt - 2m gridded lattice files, classified as being 2m above ground height  
          .lat - 2m gridded lattice files  
          .int - all laser returns including intensity in x,y,z,i format  
          .ecw - greyscaled image  
          .shp - arcgis 3d line string contours

A list of the files contained on this volume is provided in Section 7.

### LEGEND

Contour Layername	Description
Major Contour Interval	5m Contour
Minor Contour Interval	0.5m contour interval

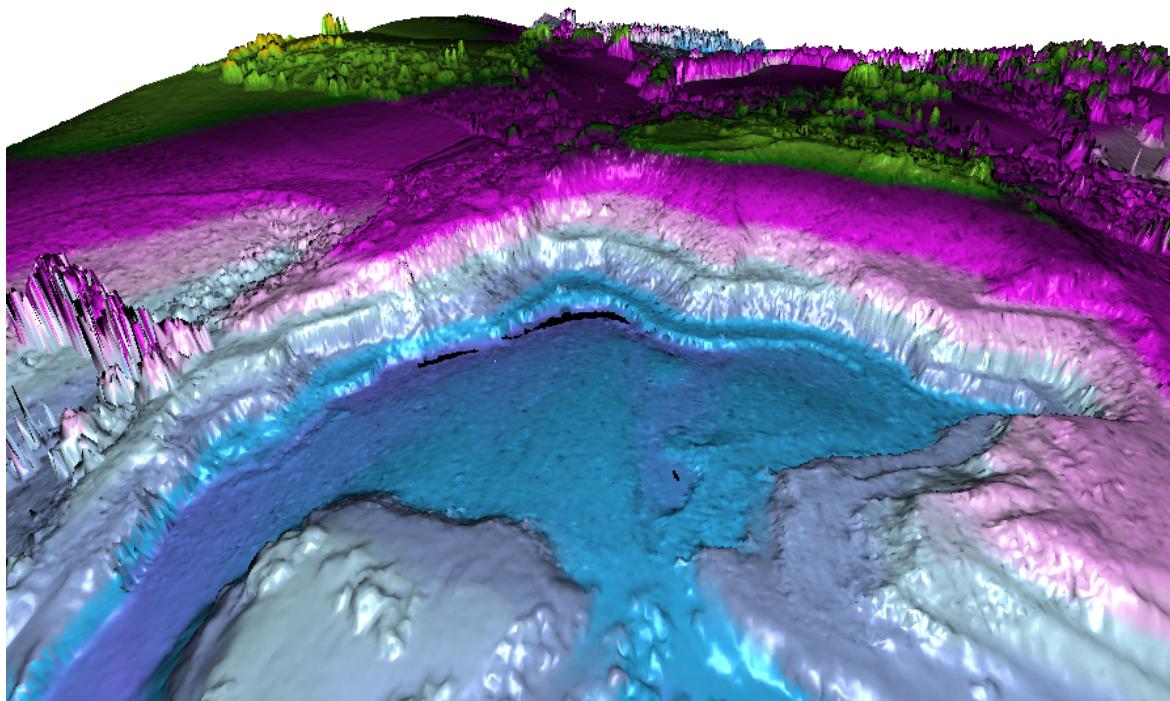
**SAMPLE LISTING**

ASCII Data				Intensity ASCII Data			
E	N	Ht		E	N	Ht	Int
2482846.460	5755001.960	3.720		2482846.460	5755001.960	3.720	131.0
2482849.420	5755000.010	3.680		2482849.420	5755000.010	3.680	132.0
2482849.120	5755001.420	3.840		2482849.120	5755001.420	3.840	112.0

**3. ADDITIONAL SERVICES**

AAMHatch can perform the following additional services on the data contained on this volume if required:

- Change horizontal datum : to NZTM or other local grid
- Improve data classification : by tailoring parameters to suit regional variations
- Further classification : Assist building identification by further classifying non-ground strikes
- Data subset : by dividing the data into different tiles or polygons
- Data presentation : by creating contours, profiles, perspectives, flythroughs, colour-coded height plots etc.
- Data gridding : to convert the measured spot heights into a regular grids



Data extracted from tile CCC193

## 4. METADATA

### DATA CHARACTERISTICS

Characteristic	Description
Format	Space delimited ASCII
Size	46,269,320.0 ground and non-ground strikes
Captured terrain model	1.3m average point separation
Supplied terrain model	1.8m estimated point density, separated into ground & non-ground
Data thinning	Points not contributing to the terrain definition within 0.13m removed
Data smoothing	Cartographic dataset smoothed to 0.15m tolerances
Contours	0.5m interval, smoothed to 0.20m tolerances
Laser Intensity	Supplied on all returns
Laser footprint size	0.220m (0.2mrad)
Video	Captured over the project area
Further details	Geoid report methodology, emailed to John Walter on the 09/10/03 File name: geoid_report.pdf

### REFERENCE SYSTEMS

	Horizontal	Vertical
Datum	NZGD1949	MSL
Projection	NZMG	N/A
Geoid Model	N/A	
Reference Point	Base Station A 5741299.943 N 2480731.527 E	Base Station A 35.877 RL

**SOURCE DATA**

	<b>Source</b>	<b>Description</b>	<b>Ref No</b>	<b>Date</b>
Laser scanning	AAM GeoScan	25,000 Hz	810215	6 <sup>th</sup> – 9 <sup>th</sup> July 2003
GPS base data	C.C.C.	Static GPS	810215	6 <sup>th</sup> – 9 <sup>th</sup> July 2003
Base Stn coords	C.C.C.	Unknown	810215	6 <sup>th</sup> – 9 <sup>th</sup> July 2003
Test points	C.C.C.	Unknown	810215	unknown
Geiod Model	C.C.C.	Unknown	810215	unknown

**ACCURACY**

	<b>Measured Point</b>	<b>Derived Point</b>	<b>Basis of Estimation</b>
Vertical data		0.07 0.15 0.14	Comparison with 155 test pts Deductive estimate Comparison with 25 pts used in geoid model calculations. This is a measure of system noise across the entire project site based on different flight runs and computed gps trajectories
Horizontal data	< 0.55		System specifications ( $1/2000$ flying height)

**ACCURACY NOTES:**

- Values shown represent standard error (68% confidence level or 1 sigma), in metres
- “Derived points” are those interpolated from a terrain model.
- “Measured points” are those observed directly.

**USE OF DATA**

- Council planning and analysis

**LIMITATIONS OF DATA**

- The definition of the ground under trees and dense vegetation may be less accurate.
- The definition of the ground in steep heavily vegetated areas may be less accurate.

## 5. CONDITIONS OF SUPPLY

The data in this volume has been commissioned by **CHRISTCHURCH CITY COUNCIL**.

The data in this volume is provided to **CHRISTCHURCH CITY COUNCIL** under a license by which the data is not sold, lent or distributed to any other party; and used only for the project for which provided, subject to the following conditions:

1. This file (README.PDF) is always stored with the unaltered data contained in this volume.
2. The data is not altered in any way without the approval of AAMHatch. The data may be copied from this file to another.
3. The data is not used for purposes beyond that intended.

Any responsibility of AAMHatch is removed if any of these conditions is not observed.

4. AAMHatch maintains an archive copy of the data in this volume together with this README file for at least 7 years after delivery.

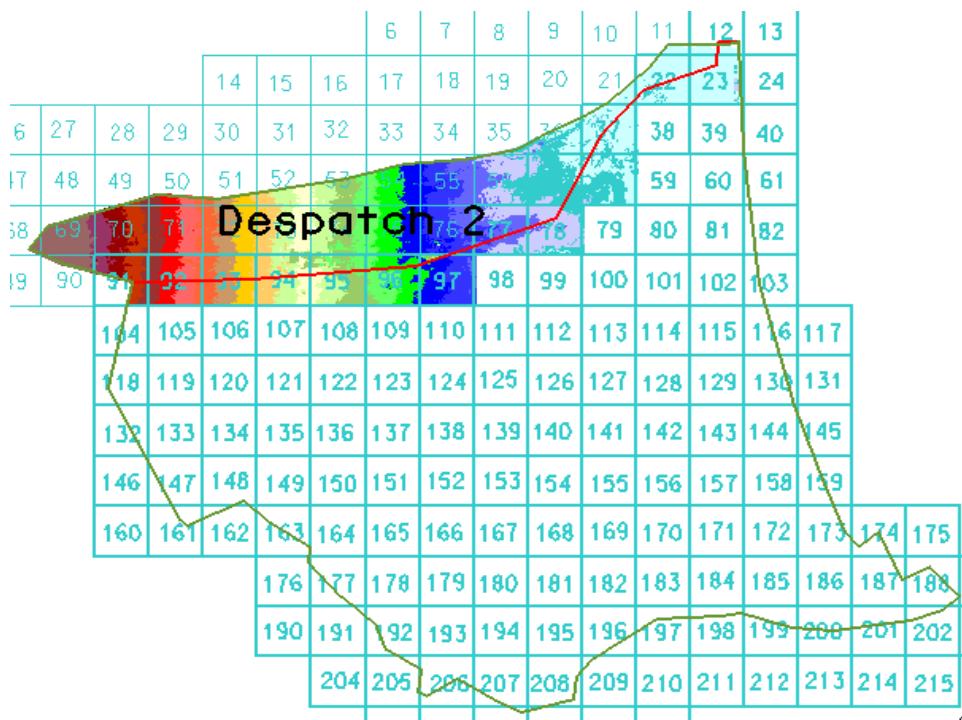
Any problems associated with the information in the data files contained in this volume should be reported to:

AAMHatch

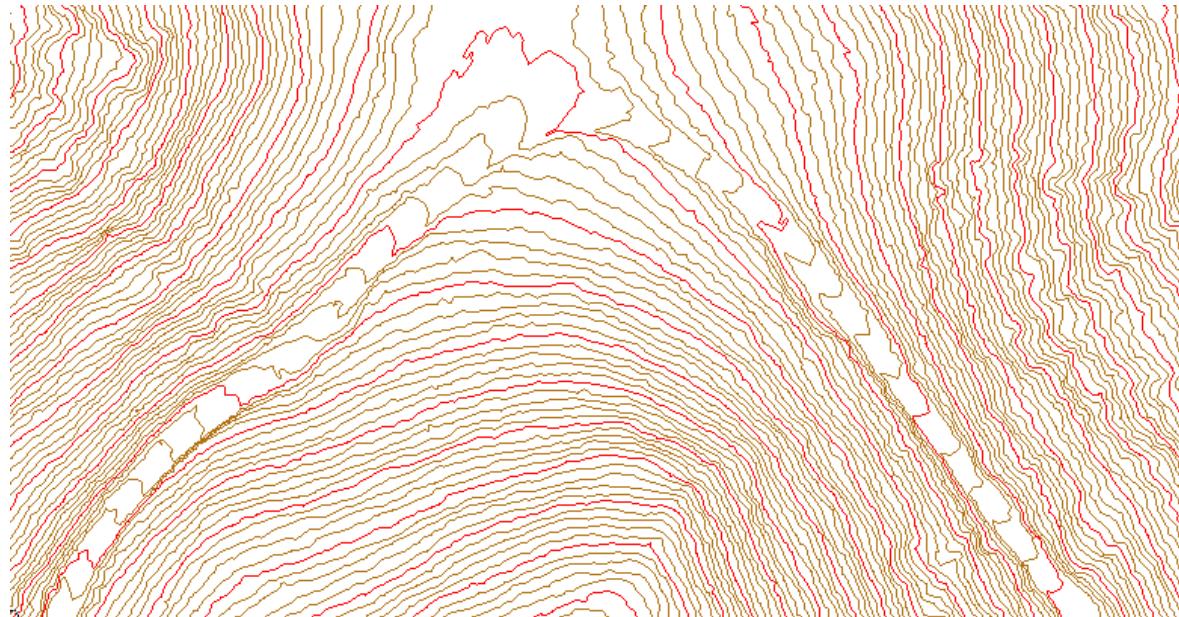
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Facsimile +61 7 3891 1050  
Email info@aamhatch.com.au  
Web www.aamhatch.com.au

## 6. VALIDATION PLOT

Elevation by colours



Contours



Laser points classified as 2m above the ground.



## 7. FILES SUPPLIED

### Contours

17/12/2003	09:24a	348	CCC011.aih
17/12/2003	09:24a	31,744	CCC011.ain
17/12/2003	09:23a	31,108	CCC011.dbf
17/12/2003	09:24a	409	CCC011.prj
17/12/2003	09:24a	5,740	CCC011.sbn
17/12/2003	09:24a	716	CCC011.sbx
17/12/2003	09:23a	674,524	CCC011.shp
17/12/2003	09:24a	3,116	CCC011.shx
17/12/2003	09:24a	348	CCC012.aih
17/12/2003	09:24a	31,744	CCC012.ain
17/12/2003	09:24a	40,456	CCC012.dbf
17/12/2003	09:24a	409	CCC012.prj
17/12/2003	09:24a	8,740	CCC012.sbn
17/12/2003	09:24a	724	CCC012.sbx
17/12/2003	09:24a	848,140	CCC012.shp
17/12/2003	09:24a	4,028	CCC012.shx
17/12/2003	09:24a	348	CCC021.aih
17/12/2003	09:24a	31,744	CCC021.ain
17/12/2003	09:24a	64,400	CCC021.dbf
17/12/2003	09:24a	409	CCC021.prj
17/12/2003	09:24a	13,436	CCC021.sbn
17/12/2003	09:24a	1,036	CCC021.sbx
17/12/2003	09:24a	1,507,972	CCC021.shp
17/12/2003	09:24a	6,364	CCC021.shx
17/12/2003	09:24a	348	CCC022.aih
17/12/2003	09:24a	41,984	CCC022.ain
17/12/2003	09:24a	362,798	CCC022.dbf
17/12/2003	09:24a	409	CCC022.prj
17/12/2003	09:24a	48,324	CCC022.sbn
17/12/2003	09:24a	4,764	CCC022.sbx
17/12/2003	09:24a	8,470,252	CCC022.shp
17/12/2003	09:24a	35,476	CCC022.shx
17/12/2003	09:25a	348	CCC023.aih
17/12/2003	09:25a	41,984	CCC023.ain
17/12/2003	09:25a	351,646	CCC023.dbf
17/12/2003	09:25a	409	CCC023.prj
17/12/2003	09:25a	47,060	CCC023.sbn
17/12/2003	09:25a	4,588	CCC023.sbx
17/12/2003	09:25a	8,773,924	CCC023.shp
17/12/2003	09:25a	34,388	CCC023.shx

**CHRISTCHURCH CITY COUNCIL****Contours**

17/12/2003	09:25a	348	CCC035.aih
17/12/2003	09:25a	31,744	CCC035.ain
17/12/2003	09:25a	28,484	CCC035.dbf
17/12/2003	09:25a	409	CCC035.prj
17/12/2003	09:25a	8,996	CCC035.sbn
17/12/2003	09:25a	612	CCC035.sbx
17/12/2003	09:25a	523,972	CCC035.shp
17/12/2003	09:25a	2,860	CCC035.shx
17/12/2003	09:25a	348	CCC036.aih
17/12/2003	09:25a	41,984	CCC036.ain
17/12/2003	09:25a	192,812	CCC036.dbf
17/12/2003	09:25a	409	CCC036.prj
17/12/2003	09:25a	29,660	CCC036.sbn
17/12/2003	09:25a	2,684	CCC036.sbx
17/12/2003	09:25a	4,773,412	CCC036.shp
17/12/2003	09:25a	18,892	CCC036.shx
17/12/2003	09:26a	348	CCC037.aih
17/12/2003	09:26a	41,984	CCC037.ain
17/12/2003	09:26a	367,800	CCC037.dbf
17/12/2003	09:26a	409	CCC037.prj
17/12/2003	09:26a	48,828	CCC037.sbn
17/12/2003	09:26a	4,780	CCC037.sbx
17/12/2003	09:26a	8,846,332	CCC037.shp
17/12/2003	09:26a	35,964	CCC037.shx
17/12/2003	09:26a	348	CCC049.aih
17/12/2003	09:26a	21,504	CCC049.ain
17/12/2003	09:26a	12,904	CCC049.dbf
17/12/2003	09:26a	409	CCC049.prj
17/12/2003	09:26a	3,684	CCC049.sbn
17/12/2003	09:26a	404	CCC049.sbx
17/12/2003	09:26a	229,036	CCC049.shp
17/12/2003	09:26a	1,340	CCC049.shx
17/12/2003	09:27a	348	CCC050.aih
17/12/2003	09:27a	31,744	CCC050.ain
17/12/2003	09:27a	42,096	CCC050.dbf
17/12/2003	09:27a	409	CCC050.prj
17/12/2003	09:27a	11,060	CCC050.sbn
17/12/2003	09:27a	964	CCC050.sbx
17/12/2003	09:27a	947,788	CCC050.shp
17/12/2003	09:27a	4,188	CCC050.shx
17/12/2003	09:27a	348	CCC051.aih
17/12/2003	09:27a	31,744	CCC051.ain
17/12/2003	09:27a	44,228	CCC051.dbf
17/12/2003	09:27a	409	CCC051.prj
17/12/2003	09:27a	10,788	CCC051.sbn
17/12/2003	09:27a	1,028	CCC051.sbx
17/12/2003	09:27a	1,017,964	CCC051.shp
17/12/2003	09:27a	4,396	CCC051.shx
17/12/2003	09:27a	348	CCC052.aih
17/12/2003	09:27a	31,744	CCC052.ain
17/12/2003	09:27a	77,930	CCC052.dbf
17/12/2003	09:27a	409	CCC052.prj
17/12/2003	09:27a	15,388	CCC052.sbn

**CHRISTCHURCH CITY COUNCIL****Contours**

17/12/2003	09:27a	1,668	CCC052.sbx
17/12/2003	09:27a	1,849,732	CCC052.shp
17/12/2003	09:27a	7,684	CCC052.shx
17/12/2003	09:28a	348	CCC053.aih
17/12/2003	09:28a	41,984	CCC053.ain
17/12/2003	09:28a	140,824	CCC053.dbf
17/12/2003	09:28a	409	CCC053.prj
17/12/2003	09:28a	24,204	CCC053.sbn
17/12/2003	09:28a	2,300	CCC053.sbx
17/12/2003	09:28a	3,543,652	CCC053.shp
17/12/2003	09:28a	13,820	CCC053.shx
17/12/2003	09:28a	348	CCC054.aih
17/12/2003	09:28a	41,984	CCC054.ain
17/12/2003	09:28a	174,362	CCC054.dbf
17/12/2003	09:28a	409	CCC054.prj
17/12/2003	09:28a	28,092	CCC054.sbn
17/12/2003	09:28a	2,916	CCC054.sbx
17/12/2003	09:28a	4,369,588	CCC054.shp
17/12/2003	09:28a	17,092	CCC054.shx
17/12/2003	09:28a	348	CCC055.aih
17/12/2003	09:28a	41,984	CCC055.ain
17/12/2003	09:28a	216,428	CCC055.dbf
17/12/2003	09:28a	409	CCC055.prj
17/12/2003	09:28a	32,692	CCC055.sbn
17/12/2003	09:28a	3,476	CCC055.sbx
17/12/2003	09:28a	5,320,900	CCC055.shp
17/12/2003	09:28a	21,196	CCC055.shx
17/12/2003	09:29a	348	CCC056.aih
17/12/2003	09:29a	41,984	CCC056.ain
17/12/2003	09:29a	304,004	CCC056.dbf
17/12/2003	09:29a	409	CCC056.prj
17/12/2003	09:29a	42,076	CCC056.sbn
17/12/2003	09:29a	4,252	CCC056.sbx
17/12/2003	09:29a	7,591,852	CCC056.shp
17/12/2003	09:29a	29,740	CCC056.shx
17/12/2003	09:29a	348	CCC057.aih
17/12/2003	09:29a	41,984	CCC057.ain
17/12/2003	09:29a	254,558	CCC057.dbf
17/12/2003	09:29a	409	CCC057.prj
17/12/2003	09:29a	37,060	CCC057.sbn
17/12/2003	09:29a	4,060	CCC057.sbx
17/12/2003	09:29a	6,251,164	CCC057.shp
17/12/2003	09:29a	24,916	CCC057.shx
17/12/2003	09:30a	348	CCC058.aih
17/12/2003	09:30a	41,984	CCC058.ain
17/12/2003	09:30a	246,276	CCC058.dbf
17/12/2003	09:30a	409	CCC058.prj
17/12/2003	09:30a	36,164	CCC058.sbn
17/12/2003	09:30a	3,972	CCC058.sbx
17/12/2003	09:30a	5,723,716	CCC058.shp
17/12/2003	09:30a	24,108	CCC058.shx
17/12/2003	09:30a	348	CCC068.aih
17/12/2003	09:30a	31,744	CCC068.ain

**CHRISTCHURCH CITY COUNCIL****Contours**

17/12/2003	09:30a	18,726	CCC068.dbf
17/12/2003	09:30a	409	CCC068.prj
17/12/2003	09:30a	4,260	CCC068.sbn
17/12/2003	09:30a	476	CCC068.sbx
17/12/2003	09:30a	301,948	CCC068.shp
17/12/2003	09:30a	1,908	CCC068.shx
17/12/2003	09:30a	348	CCC069.aih
17/12/2003	09:30a	41,984	CCC069.ain
17/12/2003	09:30a	157,880	CCC069.dbf
17/12/2003	09:30a	409	CCC069.prj
17/12/2003	09:30a	26,284	CCC069.sbn
17/12/2003	09:30a	2,732	CCC069.sbx
17/12/2003	09:30a	3,570,676	CCC069.shp
17/12/2003	09:30a	15,484	CCC069.shx
17/12/2003	09:31a	348	CCC070.aih
17/12/2003	09:31a	52,224	CCC070.ain
17/12/2003	09:30a	217,248	CCC070.dbf
17/12/2003	09:31a	409	CCC070.prj
17/12/2003	09:30a	32,836	CCC070.sbn
17/12/2003	09:30a	3,476	CCC070.sbx
17/12/2003	09:30a	5,119,828	CCC070.shp
17/12/2003	09:30a	21,276	CCC070.shx
17/12/2003	09:31a	348	CCC071.aih
17/12/2003	09:31a	52,224	CCC071.ain
17/12/2003	09:31a	283,422	CCC071.dbf
17/12/2003	09:31a	409	CCC071.prj
17/12/2003	09:31a	40,260	CCC071.sbn
17/12/2003	09:31a	4,444	CCC071.sbx
17/12/2003	09:31a	7,042,348	CCC071.shp
17/12/2003	09:31a	27,732	CCC071.shx
17/12/2003	09:31a	348	CCC072.aih
17/12/2003	09:31a	52,224	CCC072.ain
17/12/2003	09:31a	265,710	CCC072.dbf
17/12/2003	09:31a	409	CCC072.prj
17/12/2003	09:31a	38,348	CCC072.sbn
17/12/2003	09:31a	4,260	CCC072.sbx
17/12/2003	09:31a	6,626,692	CCC072.shp
17/12/2003	09:31a	26,004	CCC072.shx
17/12/2003	09:32a	348	CCC073.aih
17/12/2003	09:32a	52,224	CCC073.ain
17/12/2003	09:32a	344,184	CCC073.dbf
17/12/2003	09:32a	409	CCC073.prj
17/12/2003	09:32a	46,484	CCC073.sbn
17/12/2003	09:32a	4,740	CCC073.sbx
17/12/2003	09:32a	8,633,836	CCC073.shp
17/12/2003	09:32a	33,660	CCC073.shx
17/12/2003	09:32a	348	CCC074.aih
17/12/2003	09:32a	52,224	CCC074.ain
17/12/2003	09:32a	235,452	CCC074.dbf
17/12/2003	09:32a	409	CCC074.prj
17/12/2003	09:32a	34,876	CCC074.sbn
17/12/2003	09:32a	3,740	CCC074.sbx
17/12/2003	09:32a	5,728,156	CCC074.shp

**CHRISTCHURCH CITY COUNCIL****Contours**

17/12/2003	09:32a	23,052	CCC074.shx
17/12/2003	09:33a	348	CCC075.aih
17/12/2003	09:33a	41,984	CCC075.ain
17/12/2003	09:33a	232,254	CCC075.dbf
17/12/2003	09:33a	409	CCC075.prj
17/12/2003	09:33a	34,644	CCC075.sbn
17/12/2003	09:33a	3,836	CCC075.sbx
17/12/2003	09:33a	5,688,148	CCC075.shp
17/12/2003	09:33a	22,740	CCC075.shx
17/12/2003	09:33a	348	CCC076.aih
17/12/2003	09:33a	41,984	CCC076.ain
17/12/2003	09:33a	303,922	CCC076.dbf
17/12/2003	09:33a	409	CCC076.prj
17/12/2003	09:33a	42,236	CCC076.sbn
17/12/2003	09:33a	4,420	CCC076.sbx
17/12/2003	09:33a	7,331,404	CCC076.shp
17/12/2003	09:33a	29,732	CCC076.shx
17/12/2003	09:34a	348	CCC077.aih
17/12/2003	09:34a	41,984	CCC077.ain
17/12/2003	09:34a	272,188	CCC077.dbf
17/12/2003	09:34a	409	CCC077.prj
17/12/2003	09:34a	38,820	CCC077.sbn
17/12/2003	09:34a	4,100	CCC077.sbx
17/12/2003	09:34a	6,536,452	CCC077.shp
17/12/2003	09:34a	26,636	CCC077.shx
17/12/2003	09:34a	348	CCC078.aih
17/12/2003	09:34a	41,984	CCC078.ain
17/12/2003	09:34a	226,022	CCC078.dbf
17/12/2003	09:34a	409	CCC078.prj
17/12/2003	09:34a	33,908	CCC078.sbn
17/12/2003	09:34a	3,692	CCC078.sbx
17/12/2003	09:34a	5,522,596	CCC078.shp
17/12/2003	09:34a	22,132	CCC078.shx
17/12/2003	09:36a	348	CCC090.aih
17/12/2003	09:36a	31,744	CCC090.ain
17/12/2003	09:36a	56,610	CCC090.dbf
17/12/2003	09:36a	409	CCC090.prj
17/12/2003	09:36a	12,844	CCC090.sbn
17/12/2003	09:36a	1,188	CCC090.sbx
17/12/2003	09:36a	1,122,556	CCC090.shp
17/12/2003	09:36a	5,604	CCC090.shx
17/12/2003	09:37a	348	CCC091.aih
17/12/2003	09:37a	41,984	CCC091.ain
17/12/2003	09:37a	166,572	CCC091.dbf
17/12/2003	09:37a	409	CCC091.prj
17/12/2003	09:37a	26,076	CCC091.sbn
17/12/2003	09:37a	2,748	CCC091.sbx
17/12/2003	09:37a	3,787,132	CCC091.shp
17/12/2003	09:37a	16,332	CCC091.shx
17/12/2003	09:37a	348	CCC092.aih
17/12/2003	09:37a	52,224	CCC092.ain
17/12/2003	09:37a	274,566	CCC092.dbf
17/12/2003	09:37a	409	CCC092.prj

**CHRISTCHURCH CITY COUNCIL****Contours**

17/12/2003	09:37a	39,292	CCC092.sbn
17/12/2003	09:37a	4,340	CCC092.sbx
17/12/2003	09:37a	6,911,500	CCC092.shp
17/12/2003	09:37a	26,868	CCC092.shx
17/12/2003	09:38a	348	CCC093.aih
17/12/2003	09:38a	52,224	CCC093.ain
17/12/2003	09:38a	252,098	CCC093.dbf
17/12/2003	09:38a	409	CCC093.prj
17/12/2003	09:38a	36,996	CCC093.sbn
17/12/2003	09:38a	4,236	CCC093.sbx
17/12/2003	09:38a	6,233,956	CCC093.shp
17/12/2003	09:38a	24,676	CCC093.shx
17/12/2003	09:38a	348	CCC094.aih
17/12/2003	09:38a	52,224	CCC094.ain
17/12/2003	09:38a	351,564	CCC094.dbf
17/12/2003	09:38a	409	CCC094.prj
17/12/2003	09:38a	47,156	CCC094.sbn
17/12/2003	09:38a	4,692	CCC094.sbx
17/12/2003	09:38a	8,943,316	CCC094.shp
17/12/2003	09:38a	34,380	CCC094.shx
17/12/2003	09:39a	348	CCC095.aih
17/12/2003	09:39a	52,224	CCC095.ain
17/12/2003	09:39a	315,402	CCC095.dbf
17/12/2003	09:39a	409	CCC095.prj
17/12/2003	09:39a	42,924	CCC095.sbn
17/12/2003	09:39a	3,988	CCC095.sbx
17/12/2003	09:39a	8,008,108	CCC095.shp
17/12/2003	09:39a	30,852	CCC095.shx
17/12/2003	09:39a	348	CCC096.aih
17/12/2003	09:39a	41,984	CCC096.ain
17/12/2003	09:39a	208,474	CCC096.dbf
17/12/2003	09:39a	409	CCC096.prj
17/12/2003	09:39a	32,124	CCC096.sbn
17/12/2003	09:39a	3,620	CCC096.sbx
17/12/2003	09:39a	5,171,524	CCC096.shp
17/12/2003	09:39a	20,420	CCC096.shx
17/12/2003	09:39a	348	CCC097.aih
17/12/2003	09:39a	41,984	CCC097.ain
17/12/2003	09:39a	209,212	CCC097.dbf
17/12/2003	09:39a	409	CCC097.prj
17/12/2003	09:39a	32,068	CCC097.sbn
17/12/2003	09:39a	3,492	CCC097.sbx
17/12/2003	09:39a	5,027,956	CCC097.shp
17/12/2003	09:39a	20,492	CCC097.shx
28/11/2003	12:19p	348	CCC185_n.aih
28/11/2003	12:19p	123,904	CCC185_n.ain
28/11/2003	12:19p	1,124,906	CCC185_n.dbf
28/11/2003	12:19p	409	CCC185_n.prj
28/11/2003	12:19p	131,732	CCC185_n.sbn
28/11/2003	12:19p	5,628	CCC185_n.sbx
28/11/2003	12:19p	21,748,300	CCC185_n.shp
28/11/2003	12:19p	109,828	CCC185_n.shx
28/11/2003	12:20p	348	CCC185_s.aih

**CHRISTCHURCH CITY COUNCIL****Contours**

28/11/2003	12:20p	267,264	CCC185_s.ain
28/11/2003	12:20p	1,409,446	CCC185_s.dbf
28/11/2003	12:20p	409	CCC185_s.prj
28/11/2003	12:20p	177,612	CCC185_s.sbn
28/11/2003	12:20p	7,364	CCC185_s.sbx
28/11/2003	12:20p	27,042,292	CCC185_s.shp
28/11/2003	12:20p	137,588	CCC185_s.shx
28/11/2003	12:22p	348	CCC186_n.aih
28/11/2003	12:22p	205,824	CCC186_n.ain
28/11/2003	12:22p	2,137,852	CCC186_n.dbf
28/11/2003	12:22p	409	CCC186_n.prj
28/11/2003	12:22p	249,476	CCC186_n.sbn
28/11/2003	12:22p	8,164	CCC186_n.sbx
28/11/2003	12:22p	41,261,236	CCC186_n.shp
28/11/2003	12:22p	208,652	CCC186_n.shx
28/11/2003	12:24p	348	CCC186_s.aih
28/11/2003	12:24p	216,064	CCC186_s.ain
28/11/2003	12:23p	2,132,604	CCC186_s.dbf
28/11/2003	12:24p	409	CCC186_s.prj
28/11/2003	12:23p	247,628	CCC186_s.sbn
28/11/2003	12:23p	6,828	CCC186_s.sbx
28/11/2003	12:23p	41,082,652	CCC186_s.shp
28/11/2003	12:23p	208,140	CCC186_s.shx
28/11/2003	12:24p	348	CCC187_n.aih
28/11/2003	12:24p	123,904	CCC187_n.ain
28/11/2003	12:24p	1,096,452	CCC187_n.dbf
28/11/2003	12:24p	409	CCC187_n.prj
28/11/2003	12:24p	127,548	CCC187_n.sbn
28/11/2003	12:24p	4,348	CCC187_n.sbx
28/11/2003	12:24p	21,164,548	CCC187_n.shp
28/11/2003	12:24p	107,052	CCC187_n.shx
28/11/2003	12:26p	348	CCC187_s.aih
28/11/2003	12:26p	205,824	CCC187_s.ain
28/11/2003	12:25p	2,076,352	CCC187_s.dbf
28/11/2003	12:26p	409	CCC187_s.prj
28/11/2003	12:26p	243,172	CCC187_s.sbn
28/11/2003	12:26p	7,860	CCC187_s.sbx
28/11/2003	12:26p	40,151,308	CCC187_s.shp
28/11/2003	12:26p	202,652	CCC187_s.shx

**Unthinned Ground Data**

17/12/2003	11:44a	2,379,219	CCC011.grd
17/12/2003	11:45a	2,817,567	CCC012.grd
17/12/2003	11:46a	3,884,321	CCC021.grd
17/12/2003	11:48a	29,272,075	CCC022.grd
17/12/2003	11:51a	34,579,291	CCC023.grd
17/12/2003	11:54a	2,532,364	CCC035.grd
17/12/2003	11:56a	19,624,961	CCC036.grd
17/12/2003	11:58a	31,504,084	CCC037.grd
17/12/2003	12:00p	2,066,304	CCC049.grd
17/12/2003	12:01p	8,575,488	CCC050.grd
17/12/2003	12:03p	7,299,104	CCC051.grd

**CHRISTCHURCH CITY COUNCIL****Unthinned Ground Data**

17/12/2003	12:04p	14,585,696	CCC052.grd
17/12/2003	12:06p	22,285,920	CCC053.grd
17/12/2003	12:08p	32,560,736	CCC054.grd
17/12/2003	12:11p	38,823,680	CCC055.grd
17/12/2003	12:14p	44,001,511	CCC056.grd
17/12/2003	12:14p	42,447,010	CCC057.grd
17/12/2003	12:18p	40,970,568	CCC058.grd
17/12/2003	12:20p	1,247,104	CCC068.grd
17/12/2003	12:21p	21,167,872	CCC069.grd
17/12/2003	12:24p	30,212,640	CCC070.grd
17/12/2003	12:27p	37,849,632	CCC071.grd
17/12/2003	12:30p	38,206,464	CCC072.grd
17/12/2003	12:33p	41,506,368	CCC073.grd
17/12/2003	12:37p	48,968,480	CCC074.grd
17/12/2003	12:42p	47,800,608	CCC075.grd
17/12/2003	12:46p	43,169,152	CCC076.grd
17/12/2003	12:50p	41,521,806	CCC077.grd
17/12/2003	12:54p	41,769,874	CCC078.grd
17/12/2003	12:57p	4,097,408	CCC090.grd
17/12/2003	12:58p	22,069,472	CCC091.grd
17/12/2003	01:01p	46,982,528	CCC092.grd
17/12/2003	01:05p	43,790,016	CCC093.grd
17/12/2003	01:09p	49,126,816	CCC094.grd
17/12/2003	01:13p	47,564,352	CCC095.grd
17/12/2003	01:17p	47,615,872	CCC096.grd
17/12/2003	01:20p	40,615,200	CCC097.grd

**2m Grid**

17/12/2003	11:44a	5,540,159	CCC011.lat
17/12/2003	11:45a	4,790,262	CCC012.lat
17/12/2003	11:46a	5,847,508	CCC021.lat
17/12/2003	11:49a	5,825,050	CCC022.lat
17/12/2003	11:52a	5,207,491	CCC023.lat
17/12/2003	11:55a	6,520,582	CCC035.lat
17/12/2003	11:56a	5,886,145	CCC036.lat
17/12/2003	11:59a	5,888,792	CCC037.lat
17/12/2003	12:01p	6,984,161	CCC049.lat
17/12/2003	12:02p	6,989,180	CCC050.lat
17/12/2003	12:03p	6,986,000	CCC051.lat
17/12/2003	12:05p	6,943,982	CCC052.lat
17/12/2003	12:06p	6,937,160	CCC053.lat
17/12/2003	12:09p	6,977,609	CCC054.lat
17/12/2003	12:12p	6,990,917	CCC055.lat
17/12/2003	12:15p	6,552,348	CCC056.lat
17/12/2003	12:15p	6,011,751	CCC057.lat
17/12/2003	12:19p	5,976,317	CCC058.lat
17/12/2003	12:21p	7,033,033	CCC068.lat
17/12/2003	12:22p	6,988,190	CCC069.lat
17/12/2003	12:25p	6,990,866	CCC070.lat
17/12/2003	12:28p	7,000,973	CCC071.lat
17/12/2003	12:31p	6,989,915	CCC072.lat
17/12/2003	12:34p	6,988,436	CCC073.lat

**CHRISTCHURCH CITY COUNCIL****2m Grid**

17/12/2003	12:38p	6,995,114	CCC074.lat
17/12/2003	12:43p	7,001,033	CCC075.lat
17/12/2003	12:47p	6,859,175	CCC076.lat
17/12/2003	12:51p	6,839,876	CCC077.lat
17/12/2003	12:55p	6,544,360	CCC078.lat
17/12/2003	12:57p	6,859,433	CCC090.lat
17/12/2003	12:59p	6,999,722	CCC091.lat
17/12/2003	01:03p	6,993,554	CCC092.lat
17/12/2003	01:06p	7,000,427	CCC093.lat
17/12/2003	01:10p	6,986,393	CCC094.lat
17/12/2003	01:14p	6,969,617	CCC095.lat
17/12/2003	01:18p	6,959,888	CCC096.lat
17/12/2003	01:21p	6,981,686	CCC097.lat

**Non Ground Strikes**

17/12/2003	11:44a	1,458,426	CCC011.non
17/12/2003	11:45a	3,288,829	CCC012.non
17/12/2003	11:46a	2,019,364	CCC021.non
17/12/2003	11:48a	12,541,300	CCC022.non
17/12/2003	11:52a	17,417,376	CCC023.non
17/12/2003	11:54a	801,255	CCC035.non
17/12/2003	11:56a	8,750,640	CCC036.non
17/12/2003	11:58a	17,760,724	CCC037.non
17/12/2003	12:00p	780,704	CCC049.non
17/12/2003	12:01p	2,201,856	CCC050.non
17/12/2003	12:03p	2,045,984	CCC051.non
17/12/2003	12:04p	4,617,792	CCC052.non
17/12/2003	12:06p	7,090,240	CCC053.non
17/12/2003	12:08p	12,244,384	CCC054.non
17/12/2003	12:11p	13,886,368	CCC055.non
17/12/2003	12:15p	16,585,083	CCC056.non
17/12/2003	12:15p	14,859,632	CCC057.non
17/12/2003	12:18p	14,158,001	CCC058.non
17/12/2003	12:20p	1,330,720	CCC068.non
17/12/2003	12:22p	14,239,744	CCC069.non
17/12/2003	12:24p	18,603,456	CCC070.non
17/12/2003	12:27p	13,064,256	CCC071.non
17/12/2003	12:30p	13,323,456	CCC072.non
17/12/2003	12:34p	14,710,880	CCC073.non
17/12/2003	12:38p	15,587,872	CCC074.non
17/12/2003	12:42p	15,616,928	CCC075.non
17/12/2003	12:47p	14,380,512	CCC076.non
17/12/2003	12:50p	13,241,831	CCC077.non
17/12/2003	12:54p	12,582,591	CCC078.non
17/12/2003	12:57p	3,087,552	CCC090.non
17/12/2003	12:59p	10,898,048	CCC091.non
17/12/2003	01:02p	14,620,064	CCC092.non
17/12/2003	01:06p	14,738,880	CCC093.non
17/12/2003	01:09p	13,844,576	CCC094.non
17/12/2003	01:13p	12,291,264	CCC095.non
17/12/2003	01:17p	13,260,032	CCC096.non
17/12/2003	01:21p	12,247,968	CCC097.non

**CHRISTCHURCH CITY COUNCIL****Thinned Ground Strikes**

17/12/2003	11:44a	1,157,974	CCC011.thn
17/12/2003	11:45a	1,174,006	CCC012.thn
17/12/2003	11:46a	1,579,362	CCC021.thn
17/12/2003	11:48a	10,950,679	CCC022.thn
17/12/2003	11:52a	12,228,769	CCC023.thn
17/12/2003	11:54a	793,192	CCC035.thn
17/12/2003	11:56a	6,500,941	CCC036.thn
17/12/2003	11:59a	10,818,081	CCC037.thn
17/12/2003	12:00p	485,696	CCC049.thn
17/12/2003	12:02p	2,145,184	CCC050.thn
17/12/2003	12:03p	2,242,400	CCC051.thn
17/12/2003	12:04p	4,214,656	CCC052.thn
17/12/2003	12:06p	6,714,528	CCC053.thn
17/12/2003	12:08p	9,524,448	CCC054.thn
17/12/2003	12:12p	11,347,232	CCC055.thn
17/12/2003	12:15p	13,437,026	CCC056.thn
17/12/2003	12:15p	12,626,913	CCC057.thn
17/12/2003	12:18p	11,202,988	CCC058.thn
17/12/2003	12:20p	418,720	CCC068.thn
17/12/2003	12:22p	5,962,432	CCC069.thn
17/12/2003	12:24p	8,704,864	CCC070.thn
17/12/2003	12:27p	12,891,296	CCC071.thn
17/12/2003	12:30p	12,642,624	CCC072.thn
17/12/2003	12:34p	14,309,600	CCC073.thn
17/12/2003	12:38p	12,981,088	CCC074.thn
17/12/2003	12:43p	12,988,960	CCC075.thn
17/12/2003	12:47p	12,693,408	CCC076.thn
17/12/2003	12:51p	11,907,971	CCC077.thn
17/12/2003	12:55p	11,297,995	CCC078.thn
17/12/2003	12:57p	1,615,840	CCC090.thn
17/12/2003	12:59p	6,622,688	CCC091.thn
17/12/2003	01:02p	13,377,056	CCC092.thn
17/12/2003	01:06p	12,402,848	CCC093.thn
17/12/2003	01:10p	13,319,168	CCC094.thn
17/12/2003	01:14p	12,718,656	CCC095.thn
17/12/2003	01:17p	12,039,296	CCC096.thn
17/12/2003	01:21p	11,431,840	CCC097.thn

**X, Y, Z, Intensity**

17/12/2003	11:45a	4,517,781	CCC011.int
17/12/2003	11:45a	7,112,375	CCC012.int
17/12/2003	11:47a	6,915,077	CCC021.int
17/12/2003	11:50a	49,378,126	CCC022.int
17/12/2003	11:54a	60,896,344	CCC023.int
17/12/2003	11:55a	3,871,550	CCC035.int
17/12/2003	11:57a	33,407,879	CCC036.int
17/12/2003	12:00p	58,063,009	CCC037.int
17/12/2003	12:01p	3,283,111	CCC049.int
17/12/2003	12:02p	12,431,329	CCC050.int
17/12/2003	12:03p	10,798,492	CCC051.int
17/12/2003	12:05p	22,166,751	CCC052.int
17/12/2003	12:07p	34,259,973	CCC053.int
17/12/2003	12:10p	52,573,769	CCC054.int

**CHRISTCHURCH CITY COUNCIL****X, Y, Z, Intensity**

17/12/2003	12:13p	61,867,537	CCC055.int
17/12/2003	12:13p	71,527,180	CCC056.int
17/12/2003	12:17p	67,833,577	CCC057.int
17/12/2003	12:20p	65,233,342	CCC058.int
17/12/2003	12:21p	3,023,855	CCC068.int
17/12/2003	12:23p	41,090,992	CCC069.int
17/12/2003	12:26p	56,764,171	CCC070.int
17/12/2003	12:29p	59,708,739	CCC071.int
17/12/2003	12:32p	60,508,612	CCC072.int
17/12/2003	12:36p	66,276,327	CCC073.int
17/12/2003	12:40p	76,370,977	CCC074.int
17/12/2003	12:45p	75,065,309	CCC075.int
17/12/2003	12:49p	67,858,671	CCC076.int
17/12/2003	12:53p	64,451,161	CCC077.int
17/12/2003	12:56p	63,872,210	CCC078.int
17/12/2003	12:58p	8,422,332	CCC090.int
17/12/2003	01:00p	38,837,001	CCC091.int
17/12/2003	01:04p	72,813,725	CCC092.int
17/12/2003	01:08p	69,121,421	CCC093.int
17/12/2003	01:12p	74,257,534	CCC094.int
17/12/2003	01:16p	70,737,131	CCC095.int
17/12/2003	01:19p	71,799,223	CCC096.int
17/12/2003	01:23p	62,101,166	CCC097.int

**2m Built Layer lattice****(Points classified as being 2m above the ground terrain)**

19/12/2003	02:13p	363,151	CCC011.blt
19/12/2003	02:13p	450,458	CCC012.blt
19/12/2003	02:13p	804,472	CCC021.blt
19/12/2003	02:14p	4,489,634	CCC022.blt
19/12/2003	02:14p	3,859,043	CCC023.blt
19/12/2003	02:14p	150,656	CCC035.blt
19/12/2003	02:14p	2,843,457	CCC036.blt
19/12/2003	02:14p	4,478,391	CCC037.blt
19/12/2003	02:14p	5,225,887	CCC038.blt
19/12/2003	02:15p	3,942,405	CCC039.blt
19/12/2003	02:15p	21,994	CCC049.blt
19/12/2003	02:15p	257,710	CCC050.blt
19/12/2003	02:15p	332,253	CCC051.blt
19/12/2003	02:15p	1,168,762	CCC052.blt
19/12/2003	02:15p	2,150,678	CCC053.blt
19/12/2003	02:15p	3,207,284	CCC054.blt
19/12/2003	02:16p	3,736,973	CCC055.blt
19/12/2003	02:16p	4,224,324	CCC056.blt
19/12/2003	02:16p	4,293,881	CCC057.blt
19/12/2003	02:16p	4,420,786	CCC058.blt
19/12/2003	02:16p	4,386,275	CCC059.blt
19/12/2003	02:16p	4,987,665	CCC060.blt
19/12/2003	02:17p	320,018	CCC068.blt
19/12/2003	02:17p	3,670,262	CCC069.blt
19/12/2003	02:17p	4,384,214	CCC070.blt
19/12/2003	02:17p	4,764,845	CCC071.blt
19/12/2003	02:17p	4,684,984	CCC072.blt
19/12/2003	02:17p	4,446,558	CCC073.blt
19/12/2003	02:18p	4,107,480	CCC074.blt

**2m Built Layer lattice****(Points classified as being 2m above the ground terrain)**

19/12/2003	02:18p	4,132,950	CCC075.blt
19/12/2003	02:18p	4,310,619	CCC076.blt
19/12/2003	02:18p	4,494,160	CCC077.blt
19/12/2003	02:18p	4,530,517	CCC078.blt
19/12/2003	02:19p	4,252,557	CCC079.blt
19/12/2003	02:19p	4,716,785	CCC080.blt
19/12/2003	02:19p	5,024,595	CCC081.blt
19/12/2003	02:19p	590,387	CCC082.blt
19/12/2003	02:19p	1,703,033	CCC090.blt
19/12/2003	02:19p	4,462,454	CCC091.blt
19/12/2003	02:20p	4,292,130	CCC092.blt
19/12/2003	02:20p	4,200,950	CCC093.blt
19/12/2003	02:20p	4,207,298	CCC094.blt
19/12/2003	02:20p	4,230,726	CCC095.blt
19/12/2003	02:20p	4,223,673	CCC096.blt
19/12/2003	02:20p	4,597,041	CCC097.blt
19/12/2003	02:21p	4,768,901	CCC098.blt
19/12/2003	02:21p	4,615,885	CCC099.blt
19/12/2003	02:21p	4,242,855	CCC100.blt
19/12/2003	02:21p	4,427,009	CCC101.blt
19/12/2003	02:21p	4,776,380	CCC102.blt
19/12/2003	02:21p	1,331,188	CCC103.blt
19/12/2003	02:22p	2,535,100	CCC104.blt
19/12/2003	02:22p	4,035,639	CCC105.blt
19/12/2003	02:22p	3,895,754	CCC106.blt
19/12/2003	02:22p	4,115,430	CCC107.blt
19/12/2003	02:22p	4,111,326	CCC108.blt
19/12/2003	02:22p	4,629,864	CCC109.blt
19/12/2003	02:23p	5,075,382	CCC110.blt
19/12/2003	02:23p	5,090,382	CCC111.blt
19/12/2003	02:23p	4,561,066	CCC112.blt
19/12/2003	02:23p	4,501,473	CCC113.blt
19/12/2003	02:23p	4,570,571	CCC114.blt
19/12/2003	02:23p	4,475,098	CCC115.blt
19/12/2003	02:24p	2,482,989	CCC116.blt
19/12/2003	02:24p	3,185,882	CCC118.blt
19/12/2003	02:24p	4,199,388	CCC119.blt
19/12/2003	02:24p	4,171,704	CCC120.blt
19/12/2003	02:24p	4,358,448	CCC121.blt
19/12/2003	02:24p	4,292,739	CCC122.blt
19/12/2003	02:25p	4,992,163	CCC123.blt
19/12/2003	02:25p	5,213,481	CCC124.blt
19/12/2003	02:25p	5,306,259	CCC125.blt
19/12/2003	02:25p	5,294,714	CCC126.blt
19/12/2003	02:25p	4,851,018	CCC127.blt
19/12/2003	02:26p	4,694,595	CCC128.blt
19/12/2003	02:26p	4,581,869	CCC129.blt
19/12/2003	02:26p	3,703,828	CCC130.blt
19/12/2003	02:26p	2,303,689	CCC132.blt
19/12/2003	02:26p	4,217,613	CCC133.blt
19/12/2003	02:26p	4,194,597	CCC134.blt
19/12/2003	02:27p	4,202,691	CCC135.blt

**2m Built Layer lattice****(Points classified as being 2m above the ground terrain)**

19/12/2003	02:27p	4,694,850	CCC136.blt
19/12/2003	02:27p	5,002,194	CCC137.blt
19/12/2003	02:27p	5,148,963	CCC138.blt
19/12/2003	02:27p	5,079,437	CCC139.blt
19/12/2003	02:28p	4,981,978	CCC140.blt
19/12/2003	02:28p	4,973,085	CCC141.blt
19/12/2003	02:28p	4,689,699	CCC142.blt
19/12/2003	02:28p	4,361,723	CCC143.blt
19/12/2003	02:28p	4,318,885	CCC144.blt
19/12/2003	02:28p	315,189	CCC145.blt
19/12/2003	02:28p	21,006	CCC146.blt
19/12/2003	02:28p	4,179,545	CCC147.blt
19/12/2003	02:29p	4,319,350	CCC148.blt
19/12/2003	02:29p	4,495,917	CCC149.blt
19/12/2003	02:29p	4,920,993	CCC150.blt
19/12/2003	02:29p	4,440,765	CCC151.blt
19/12/2003	02:29p	4,644,036	CCC152.blt
19/12/2003	02:29p	4,881,512	CCC153.blt
19/12/2003	02:30p	5,141,483	CCC154.blt
19/12/2003	02:30p	4,941,721	CCC155.blt
19/12/2003	02:30p	4,667,949	CCC156.blt
19/12/2003	02:30p	4,223,325	CCC157.blt
19/12/2003	02:30p	4,015,581	CCC158.blt
19/12/2003	02:30p	2,057,777	CCC159.blt
19/12/2003	02:30p	816,600	CCC161.blt
19/12/2003	02:30p	1,015,957	CCC162.blt
19/12/2003	02:31p	4,093,617	CCC163.blt
19/12/2003	02:31p	4,300,383	CCC164.blt
19/12/2003	02:31p	4,389,531	CCC165.blt
19/12/2003	02:31p	4,460,340	CCC166.blt
19/12/2003	02:31p	4,869,009	CCC167.blt
19/12/2003	02:31p	5,250,426	CCC168.blt
19/12/2003	02:32p	5,036,871	CCC169.blt
19/12/2003	02:32p	4,556,117	CCC170.blt
19/12/2003	02:32p	4,426,032	CCC171.blt
19/12/2003	02:32p	4,899,802	CCC172.blt
19/12/2003	02:32p	4,493,910	CCC173.blt
19/12/2003	02:32p	794,928	CCC174.blt
19/12/2003	02:32p	15,676	CCC176.blt
19/12/2003	02:33p	4,167,483	CCC177.blt
19/12/2003	02:33p	4,426,935	CCC178.blt
19/12/2003	02:33p	4,400,352	CCC179.blt
19/12/2003	02:33p	4,559,674	CCC180.blt
19/12/2003	02:33p	5,142,917	CCC181.blt
19/12/2003	02:34p	4,548,070	CCC182.blt
19/12/2003	02:34p	4,060,103	CCC183.blt
19/12/2003	02:34p	4,397,468	CCC184.blt
19/12/2003	02:34p	4,273,391	CCC185.blt
19/12/2003	02:34p	4,267,889	CCC186.blt
19/12/2003	02:35p	4,183,390	CCC187.blt
19/12/2003	02:35p	2,417,079	CCC188.blt
19/12/2003	02:35p	126,718	CCC191.blt

**CHRISTCHURCH CITY COUNCIL****2m Built Layer lattice****(Points classified as being 2m above the ground terrain)**

19/12/2003	02:35p	4,185,392	CCC192.blt
19/12/2003	02:35p	4,437,808	CCC193.blt
19/12/2003	02:35p	4,573,332	CCC194.blt
19/12/2003	02:36p	5,826,094	CCC195.blt
19/12/2003	02:36p	4,689,977	CCC196.blt
19/12/2003	02:36p	2,161,899	CCC197.blt
19/12/2003	02:36p	954,133	CCC198.blt
19/12/2003	02:37p	1,958,432	CCC199.blt
19/12/2003	02:37p	1,955,586	CCC200.blt
19/12/2003	02:37p	1,419,444	CCC201.blt
19/12/2003	02:37p	550,479	CCC202.blt
19/12/2003	02:37p	898,272	CCC205.blt
19/12/2003	02:37p	3,460,396	CCC206.blt
19/12/2003	02:37p	4,526,485	CCC207.blt
19/12/2003	02:38p	5,122,092	CCC208.blt
19/12/2003	02:38p	453,013	CCC209.blt
19/12/2003	02:38p	216,625	CCC218.blt
19/12/2003	02:38p	176,600	CCC219.blt

**Geoid Model**

28/11/2003	05:10p	30,986	geoid_model.dxf
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**Tile Layout**

19/12/2003	02:05p	16,300	tile_layout.dxf
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**Intensity Images**

28/11/2003	03:01p	199,435,730	Christchurch.ecw
28/11/2003	03:01p	881	Christchurch.ers
28/11/2003	04:13p	67,529,936	Ecan&CCC.ecw
28/11/2003	04:13p	869	Ecan&CCC.ers