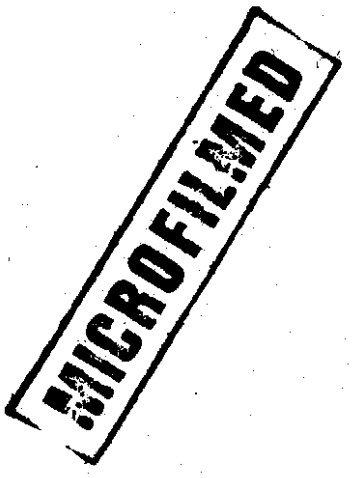

DUNDAS MAPPING
TASMANIA

FIELD SURVEYS & MAPPING

by

AUSTRALIAN AERIAL MAPPING PTY. LTD.

Dup. Copies of maps in vertiplan

001

680002

GEOPHOTO RESOURCES CONSULTANTS

DUNDAS MAPPING
TASMANIA

FIELD SURVEYS & MAPPING

REPORT

June 1973

Australian Aerial Mapping Pty. Ltd.,
786 Pacific Highway,
Gordon, N.S.W. 2072

A.A.M. Job No. 1178

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PART I - REPORT

1. INTRODUCTION

The survey and mapping as described in this Report was carried out on the instruction of Dr. J. Juilland of Geophoto Resources Consultants after receipt of A.A.M. formal Proposal dated June 1972. Reference should be made to that Proposal for background information and details of initial reconnaissance.

2. AERIAL PHOTOGRAPHY

The aerial photography used in the mapping was flown for Geophoto Resources Consultants by the Tasmanian Lands Department in November 1972.

Technical details are as follows:-

Camera	Wild RC5a
Lens	Aviotar
Focal Length	210.07 mm
Picture Format	7" x 7"
Film Roll	AAM682 (T580)
Date of Photography	2.11.71
Flying Height	9,300' ASL
Film Type	Kodak MS2448 colour processed to negative image

A detailed Key Diagram of the photography is included at Appendix 10.

3. FIELD SURVEY

3.1 General Remarks

As a result of a comprehensive ground reconnaissance in June 1972 it was possible to make a fairly accurate assessment of the time and field procedures required to establish ground control for photogrammetric plotting of the area.

At a meeting with Dr. J. Juilland and Mr. J. Thigpen in Brisbane on 4th September 1972 approval was given to proceed with the project and it was agreed that fieldwork should be commenced as soon as weather allowed. It was also agreed that a helicopter should be used to transport field crews.

Regular weather reports from Zeehan were arranged in the hope that a favourable pattern would allow fieldwork to commence during October. However, due to the availability date of a suitable helicopter the commencement date was finally fixed at November 13th.

3.2 Personnel

The field crew consisted of the following personnel:-

A.A. Porteous - Registered Surveyor
E.H. Attwater - Registered Surveyor
J.T. O'Keefe - Graduate Surveyor
J.L. Cook - Field Assistant

The rates charged were for two Surveyors plus two field hands as per our Proposal.

3.3 Positioning & Accommodation

Field personnel were positioned by air to Wynyard on 13th November 1972 where it was arranged that a vehicle would be waiting.

Field equipment was surface-freighted to Burnie and thence to Zeehan.

The helicopter, on contract from Jayrow Helicopters, Moorabbin, Victoria, was flown from Victoria and arrived on 14th November.

Field personnel were accommodated at Geo-photo's Zeehan quarters which proved to be quite comfortable.

3.4 Transport

3.4.1 Vehicular

A 4 W.D. Toyota was provided by Geophoto Resources Consultants for the use of field crews.

3.4.2 Helicopter

A Bell 47G3B2 helicopter was chartered from Jayrow Helicopters. This aircraft proved to be ideal for the job and the pilot/engineer, Mr. R. Newman, was a most capable and helpful person.

3.5 Reconnaissance & Marking

3.5.1 Reconnaissance

As mentioned above a fairly comprehensive ground reconnaissance was carried out in June 1972 and only minor amendments were necessary to the plan formulated at that time.

Targetting and ground marking was carried out concurrently by two parties - one operating by vehicle and the other visiting the less accessible points by helicopter.

3.5.2 Ground Marking

Major Control: For description of ground marks see Appendix 8. The quadrapod beacon placed on Dundas was provided by Renison Ltd. (See photo at Appendix 12.)

Minor Control: Ground marks consisted of short star iron pickets driven firmly into the ground, usually projecting about 30 centimetres. Each ground mark was accompanied by a 5' 6" star iron witness post bearing a disc stamped with the station identity number.

Yellow and black cloth targets were laid over the ground marks to enable spot photography of the stations later.

Where possible, marks vulnerable to interference by traffic were referenced to marks such as galvanised nails in blazed trees.

3.5.3 Spot Photography

Vertical aerial photographs were taken of all targets using a Polaroid 240 Land Camera held by hand from the helicopter.

3.6 Observational Procedures

3.6.1 General

All horizontal control points were fixed from major control by horizontal and vertical angular measurement and by electronic distance measuring techniques. (See photo at Appendix 12.)

Some differential levelling and stadia heighting was carried out to provide additional height control.

All major control points used were surveyed by closed traverse from Lands Department trigonometric control. During the course of the major control traverse two H.E.C. points (Mt. Zeehan and Read) were connected. See diagram at Appendix 6.

3.6.2 Angular Measurement

All angles were measured with Wild T2 theodolites graduated to 1 second of arc.

On major control lines 12 arcs were read on 6 zero settings.

On minor control radiations 6 arcs were read on 3 zero settings.

Each minor control point was observed also from an eccentric at the relevant major control point. This method provides a valuable check on fieldwork and calculations.

3.6.3 Distance Measurement

3.6.3.1 Tellurometer MRA2

All major control lines and all long radiations were measured by the Tellurometer MRA2. On each line a total of 3 coarse and 8 fine readings were recorded, spanning the frequency band. Meteorological readings were carefully observed and recorded for later distance correction.

As for angles (above) a check distance was observed from an eccentric station, one coarse and one fine reading being recorded.

3.6.3.2 Hewlett-Packard 3800B

Shorter control raditations (below 5 kilometres) and all drillhole traverse lines were measured with the Hewlett-Packard 3800B.

This is a quick reading, short-medium distance instrument which utilises infra-red light. Prism reflectors only are required at the remote end of the line.

3.6.4 Heighting

Most control points were heighted by simultaneous-reciprocal vertical angles observed immediately before the horizontal control angles. Additional height points were connected by differential levelling or stadia heighting.

3.6.5 Additional Control & Drillhole Co-ordination

In addition to the work provided for in the original estimate, several control points and drillholes were fixed at the request of Dr. J. Juilland and Mr. L. Discala.

As much of this work was performed on the ground while the weather was unsuitable for flying (20th and 21st November) no great additional cost was involved over and above that attributable to the weather conditions. For drillhole traverse details see Appendix 7.

3.7 Datum for Surveys

3.7.1 Horizontal Datum & Azimuth

Co-ordinates of all stations have been computed in terms of the Australian Map Grid. Datum for co-ordinates is Agnew T.S. Azimuth is the line from Agnew T.S. to Murchison T.S.

The following information was taken from Station Summaries provided by the Department of Lands, Tasmania:-

Station	A.M.G. Co-ordinates (Metres)
Agnew T.S.	E 352 794.369 N 5360 341.823
Murchison T.S.	E 385 087.509 N 5370 328.049

Adjusted Azimuth Agnew T.S. to Murchison T.S.
74° 00' 02.46"

Convergence at Agnew T.S. 1° 11' 06.64"

3.7.2 Vertical Datum

All heights have been reduced in metres to State Datum from bench-mark levels and a trigonometric height for Mt. Zeehan established by the H.E.C. and supplied by Renison Ltd. The trigonometric height of Mt. Zeehan was independently checked by A.A.M.

3.8 Calculations

All calculations were carried out in A.A.M. Sydney Office on a Honeywell G.265 time-sharing electronic computer accessed by remote terminal.

3.9 Records

All original field records are contained in the following books which are lodged in A.A.M. Sydney Office:-

Fieldbooks : 689, 754, 857, 858

Levelbooks : 163, 164

4. PHOTOGRAMMETRY & DRAFTING

4.1 Preparation

As mentioned previously, targetted control survey stations were photographed with a Polaroid camera.

Transparent positive film copies were made from the original Polaroid photographs, reduced to the same scale as the survey photography.

The locations of the targets were transferred to film diapositives of the survey photography by simultaneous stereoscopic observations of the Polaroid film copies and the survey photography diapositives. Observations were made using a Wild Point-Transfer Instrument equipped with 10 times optical magnification. Target locations were marked on the survey photography diapositives by a small drill hole in the photograph emulsion.

As far as terrain conditions permitted, field control stations had been established in locations suitable for photogrammetric aerial triangulation and adjustment of the runs of photography. Generally speaking, a pair of control stations were located on

opposite sides of each run at intervals of four to five models.

Minor photogrammetric control points consisting of drill holes in the diapositive emulsion were selected on each run. Where possible, identical points were selected on adjacent runs. Because of the large side overlaps between runs, most points are common to two runs. This work was done using a Wild Point-Transfer Instrument.

4.2 Aerial Triangulation

Aerial triangulation was carried out on a Wild A8 Autograph equipped with EK5 automatic digital readout equipment. Levels were carried forward along each run by use of the cross-level.

4.3 Adjustment

Separate computations were carried out for each run to transform the aerial triangulation observations into the ground system of co-ordinates and levels.

Mean values were adopted for photogrammetric points common to adjacent runs.

Computing was done on a Honeywell G265 Time-Sharing Electronic Computer accessed by a remote terminal in our Sydney office.

4.4 Stereoplotting

Stereoplotting was carried out on Wild A8 Autographs at a scale of 1:5,000. Where vegetation cover permitted, contours were plotted at vertical intervals of five metres. In open flatter areas some contours at two and a half metre intervals were plotted. In steep heavily timbered areas the contour interval was increased to twenty five metres. All roads and tracks, exploration grid tracks and other details were shown. Plotting was done in pencil on Cronaflex drafting film.

4.5 Drafting

Drafting was done in a system of International Sheet Size B1 sheets, the layout of which was designed to suit the mapping area.

Drafting was in ink on Copyline C1 drafting film after title information had been added in our photographic laboratory.

4.6 Delivery

Dyelines from the pencil plots were delivered on 6th February 1973.

Final drafted sheets were delivered on 27th February 1973.

PART II - APPENDICES

5. Schedule of Co-ordinates, Minor Control & Drillholes

Station	Easting Metres	Northing Metres	Height Metres (Ground Level)	Grid Bearing	To
DS1	366 953.98	5365 102.09	227.4	216 27 45	Zeehan
3	376 455.13	5365 268.76	996.2	217 16 45	Dundas
4	365 251.83	5363 621.97	191.1	213 00 16	Zeehan
5	366 898.03	5364 254.50	226.9	219 12 08	Zeehan
7	368 490.15	5364 590.53	336.8	128 46 22	Dundas
8	369 206.75	5363 748.57	353.9	150 46 14	DS 100
9	374 203.60	5364 071.70	922.1	198 51 34	Dundas
10	376 871.95	5364 146.59	871.1	228 59 31	Dundas
12	364 911.83	5362 445.08	181.5	215 56 23	Zeehan
15	369 178.82	5362 915.81	221.6	115 03 56	DS 100
17	370 893.68	5362 484.35	322.7	240 36 46	Zeehan
18	371 919.86	5362 607.37	502.6	145 24 44	Dundas
19	373 629.21	5362 810.80	898.4	194 57 47	Dundas
20	377 239.73	5362 877.87	730.8	244 08 36	Dundas
21	364 661.26	5361 793.83	171.9	217 34 37	Zeehan
23	369 470.85	5361 808.15	254.2	239 59 12	Zeehan
24	370 868.68	5361 958.03	433.9	302 16 50	DS 100
25	376 714.63	5361 676.81	578.6	257 29 28	Dundas
26	365 506.11	5360 503.96	217.3	231 44 17	Zeehan
28	368 891.62	5360 864.84	222.9	243 20 14	Zeehan
29	371 979.96	5360 602.44	830.6	251 14 56	Zeehan
30	373 528.75	5361 637.00	907.6	208 44 00	Dundas
31	377 088.68	5360 790.76	563.3	18 04 30	Read Aux.
33	369 119.69	5359 976.48	230.4	15 29 41	DS 100
34	377 058.94	5359 633.92	591.1	15 17 29	Read Aux.
35	365 759.88	5359 399.19	207.0	242 21 10	Zeehan
36	372 493.67	5363 926.07	574.1	243 25 53	DS 100

37	371 146.10	5361 307.79	465.4	314 55 49 DS 100
38*	371 278.66	5361 799.67	466.8	195 04 57 DS 37
39*	370 738.79	5361 520.88	351.2 on peg	117 37 05 DS 37
40	373 014.95	5357 834.64	611.2	265 13 49 Zeehan
41*	371 009.38	5361 352.02	384.1 on peg	238 39 38 DS 39
42*	370 673.32	5361 872.72		23 28 47 DS 43
43*	370 720.72	5361 981.83	403.6	203 28 47 DS 42
44*	370 818.39	5361 985.91		119 00 20 DS 24
101	373 247.14	5360 521.50	1140.5	339 18 11 Dundas

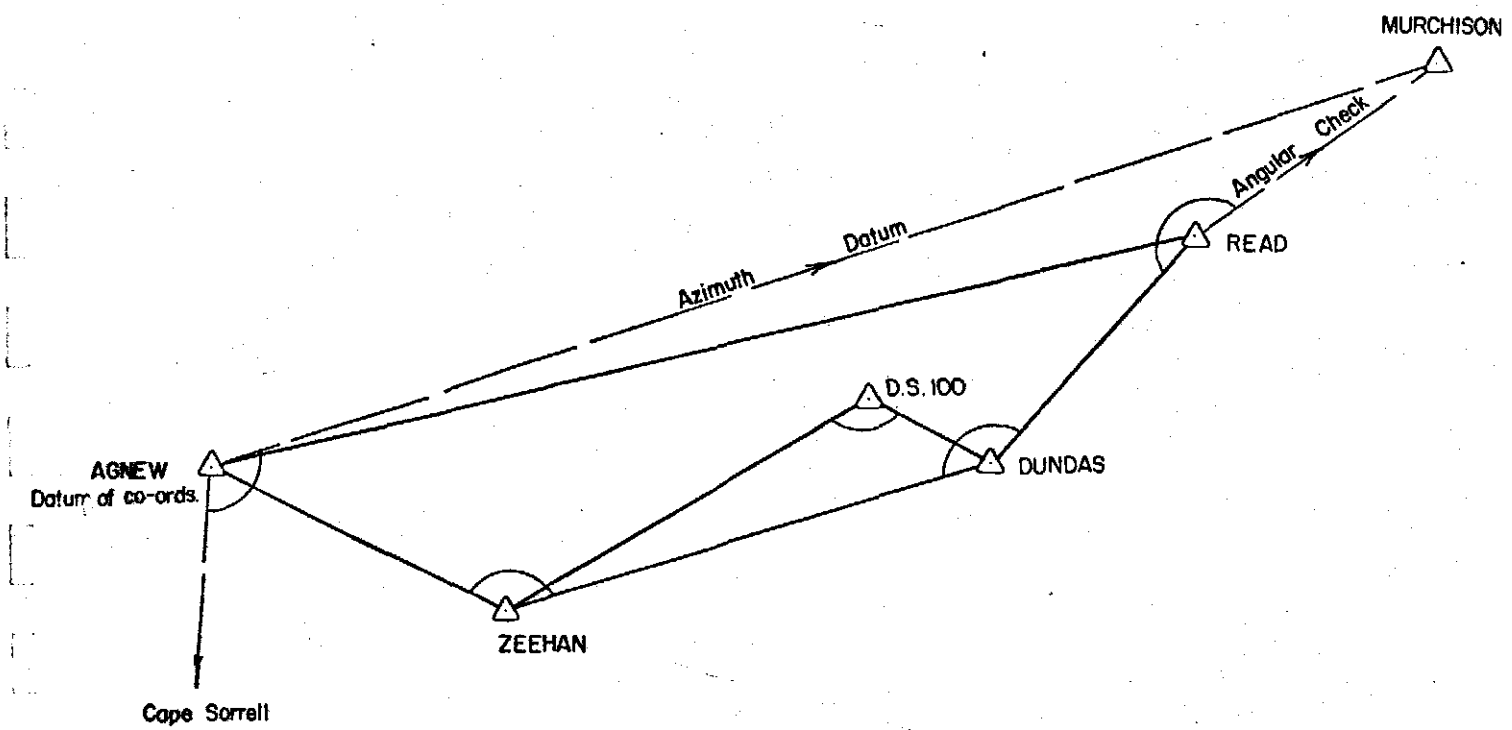
Drill Positions

SC2A*	371 009.85	5361 395.04	374.2
KH2A*	370 608.56	5361 934.31	369.5
KH3 *	370 731.18	5361 967.55	405.8
KH5 *	370 686.62	5361 889.18	383.6
KH7 *	370 754.92	5361 512.13	349.0

* Denotes 3' high white peg.
All other marks are star iron groundmarks with star iron witness posts.
DS 101 is a brass rod set in concrete.
DS 40 is located to the south of the mapping area. Access via Howards Road and dozed track.

6. DIAGRAM OF MAJOR CONTROL TRAVERSE.

NOT TO SCALE



KEY.

Measured line

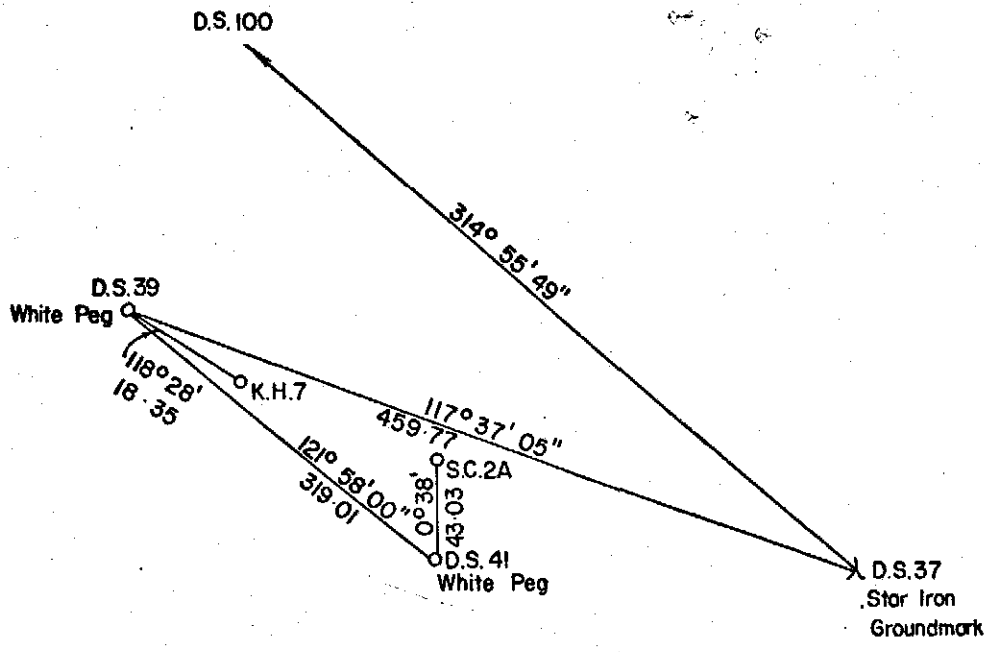
Angle observed to Trig

Angle measured

7. DIAGRAMS OF DRILLHOLE TRAVERSES

DIAGRAM SHOWING DRILLHOLE TRAVERSE

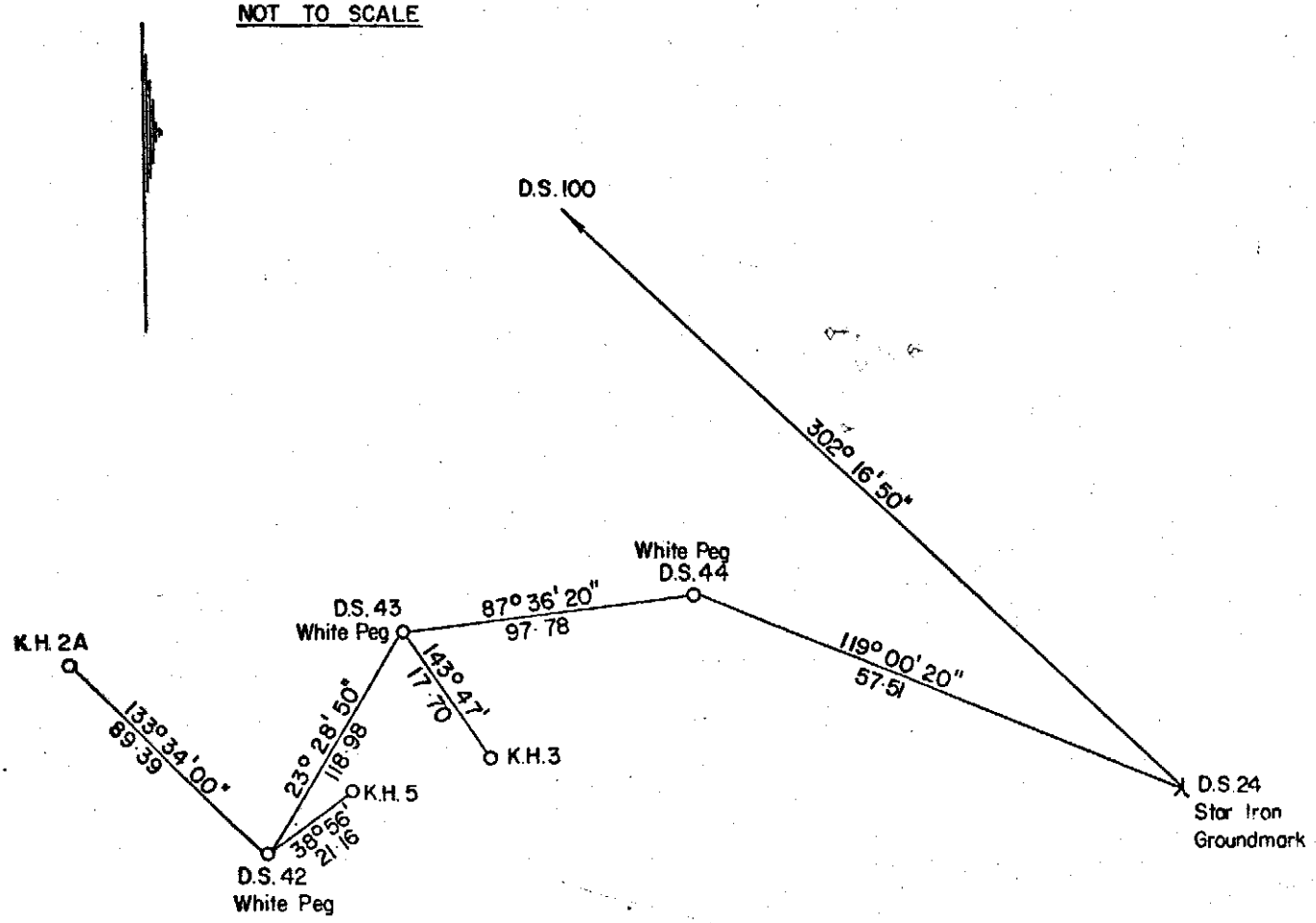
NOT TO SCALE



NOTE: Distances shown are Australian Map Grid Distances in metres.

DIAGRAM SHOWING DRILLHOLE TRAVERSE

NOT TO SCALE



NOTE : Distances shown are Australian Map Grid Distances in metres.

8. STATION SUMMARIES - MAJOR CONTROL TRAVERSE STATIONS

026

680027

STATION SUMMARY
AUSTRALIAN AERIAL MAPPING PTY. LTD.

CLIENT GEOPHOTO RESOURCES CONSULTANTS JOB No. 1178

STATION NAME/NUMBER DUNDAS ORDER 3RD

LOCALITY North end of ridge, Mt. Dundas MAP NAME/NUMBER

REDUCED LEVEL 1106.08 metres DATUM STATE

Derived from Trig. Heighting

COORDINATES

EASTING 373 112.58 LATITUDE . . "

NORTHING 5360 877.67 LONGITUDE . . "

DATUM AMG Metres CONVERGENCE . . "

Derived from Agnew

TO	GRID BEARING	DISTANCE
ZEEHAN	251 ° 42 ' 26 " 6	12935.83
READ	47 ° 09 ' 43 " 2	7832.41
DS 100	297 ° 51 ' 14 " 0	3693.31
	° ' "	
	° ' "	
	° ' "	

Established AAM Date 1972

Surveyed AAM Date 1972

Computed AAM Date 1972

Field Books 857, 858

Level Books

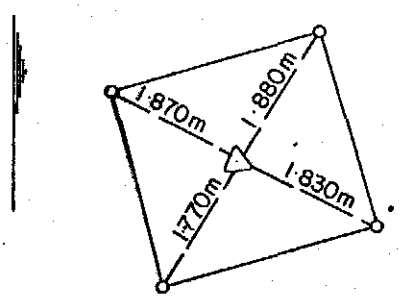
DESCRIPTION

Australian Aerial Mapping brass plaque in concrete. Steel quadrapod beacon and vanes. Situated North end of ridge.

ACCESS

By helicopter. Landing pad cleared about 30 metres West of beacon.

REFERENCE MARKS



R.M.'s are bolts in concrete. (Beacon holding bolts)

REMARKS

STATION SUMMARY
AUSTRALIAN AERIAL MAPPING PTY. LTD.

CLIENT GEOPHOTO RESOURCES CONSULTANTS JOB No. 1178

STATION NAME/NUMBER READ ORDER 3RD

LOCALITY MT. READ MAP NAME/NUMBER

REDUCED LEVEL 1123.32 Metres DATUM STATE

Derived from Trig. Heighting

COORDINATES

EASTING 378 854.76 LATITUDE . . "

NORTHING 5366 201.98 LONGITUDE . . "

DATUM AMG Metres CONVERGENCE . . "

Derived from Agnew

TO	GRID BEARING	DISTANCE
AGNEW	257 · 19 · 38 "4	26715.89
DUNDAS	227 · 09 · 46 "5	7832.42
MURCHISON	56 · 29 · 42 "6	7476.44
	· · "	
	· · "	
	· · "	

Established HEC. Renison Date

Surveyed A.A.M. Date 1972

Computed A.A.M. Date 1972

Field Books 857, 858

Level Books

DESCRIPTION

1" Diameter drill stem set in concrete in drilled hole in rock.

ACCESS

By PMG access road to Mt. Read TV tower.
Situated on rock outcrop approx. 100 metres from TV Tower on bearing Mag. 164°

REFERENCE MARKS

NIL

REMARKS Also known as Read Auxiliary 1 as established by H.E.C.

STATION SUMMARY
AUSTRALIAN AERIAL MAPPING PTY. LTD.

CLIENT GEOPHOTO RESOURCES CONSULTANTS JOB No. 1178

STATION NAME/NUMBER Zeehan 4766 ORDER 3RD

LOCALITY MT. ZEEHAN MAP NAME/NUMBER

REDUCED LEVEL 701.53 metres DATUM STATE

Derived from Trig. Heights from State B.M.s

COORDINATES

EASTING 360 832.71 LATITUDE . . "

NORTHING 5356 818.16 LONGITUDE . . "

DATUM AMG Metres CONVERGENCE . . "

Derived from Agnew

TO	GRID BEARING	DISTANCE
AGNEW	293 • 40 ' 12 ." 8	8778.03
DUNDAS	71 • 42 ' 23 ." 9	12935.83
DS100	57 • 18 ' 44 ." 0	10713.37
	• ' "	
	• ' "	
	• ' "	

Established HEC. Renison Date

Surveyed A.A.M. Date 1972

Computed A.A.M. Date 1972

Field Books 857, 858

Level Books

DESCRIPTION

H.E.C. Brass plaque No. 4766 in concrete. Timber and galvanised iron beacon

ACCESS

Situated on highest ridge of Mt. Zeehan. Access was by helicopter. Estimate 2 hours climb on foot.

REFERENCE MARKS

REMARKS

029

680030

STATION SUMMARY
AUSTRALIAN AERIAL MAPPING PTY. LTD.

CLIENT GEOPHOTO RESOURCES CONSULTANTS JOB No. 1178

STATION NAME/NUMBER DS100 ORDER 3RD

LOCALITY DUNDAS MAP NAME/NUMBER

REDUCED LEVEL 363.17 Metres DATUM STATE

Derived from Trig. Heighting

COORDINATES

EASTING 369 847.82 LATITUDE . . "

NORTHING 5362 602.92 LONGITUDE . . "

DATUM AMG Metres CONVERGENCE . . "

Derived from Agnew

TO	GRID BEARING	DISTANCE
ZEEHAN	237 ° 18 ' 47 ." 9	10713.37
DUNDAS	117 ° 51 ' 15 ." 1	3693.31
	. . "	
	. . "	
	. . "	
	. . "	

Established AAM Date 1972

Surveyed AAM Date 1972

Computed AAM Date 1972

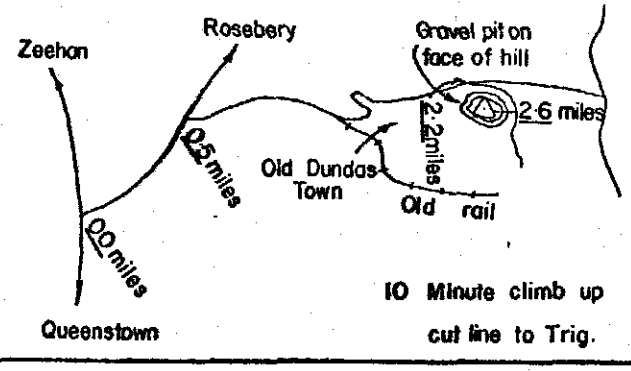
Field Books 857, 858

Level Books

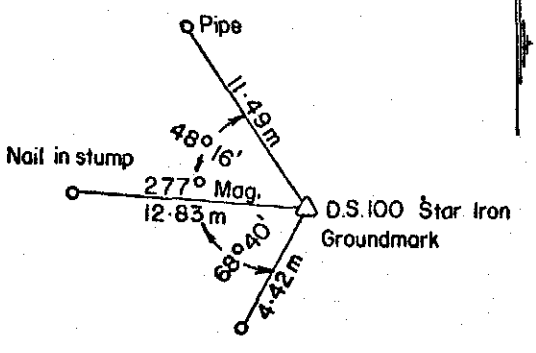
DESCRIPTION

Star iron picket driven into rocks with star iron witness post.

ACCESS



REFERENCE MARKS



REMARKS

STATION SUMMARY
AUSTRALIAN AERIAL MAPPING PTY. LTD.

CLIENT.....GEOPHOTO RESOURCES CONSULTANTS..... JOB No.....1178.....

STATION NAME/NUMBER.....DS.40..... ORDER...3RD.....

LOCALITY....See access sketch..... MAP NAME/NUMBER.....

REDUCED LEVEL.....611.2..Ground..level.....DATUM.....STATE.....

Derived from.....Trig. Heighting.....

COORDINATES

EASTING.....373.014.95.....LATITUDE .....°.....'.....".....

NORTHING.....5357.834.64.....LONGITUDE.....°.....'.....".....

DATUM.....AMG Metres.....CONVERGENCE .....°.....'.....".....

Derived from.....Agnew.....

TO	GRID BEARING	DISTANCE
Zeehan	265 ° 13 ' 49 "	12226.78
	° ' "	
	° ' "	
	° ' "	
	° ' "	
	° ' "	

Established....AAM..... Date.1972....

Surveyed.....AAM..... Date.1972....

Computed.....AAM..... Date.1972....

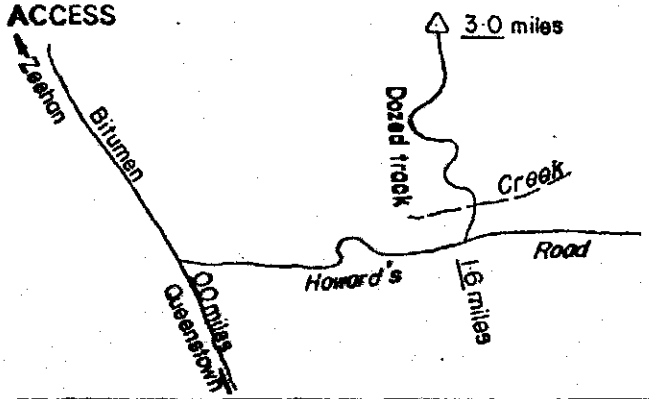
Field Books..754, 689.....

Level Books.....

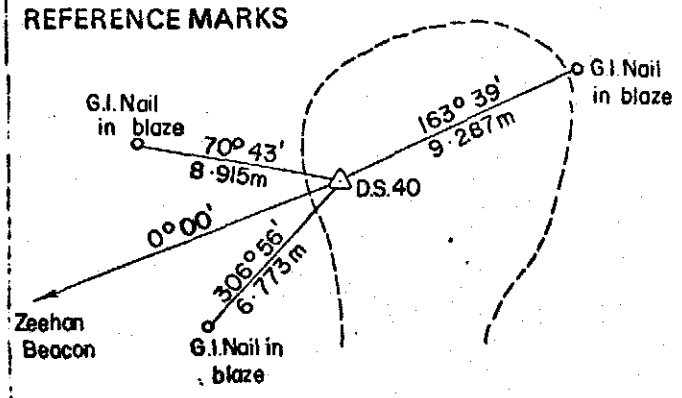
DESCRIPTION

Short star iron picket in ground.
Star iron witness post.

ACCESS



REFERENCE MARKS



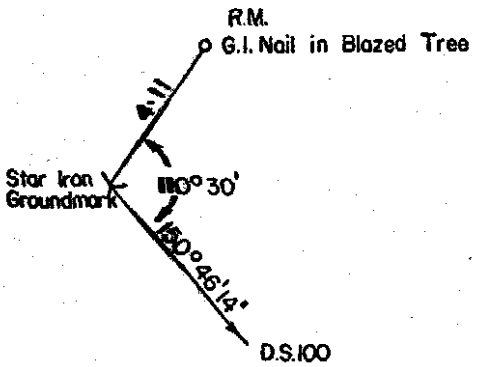
REMARKS

9. CONTROL STATION REFERENCE DIAGRAMS

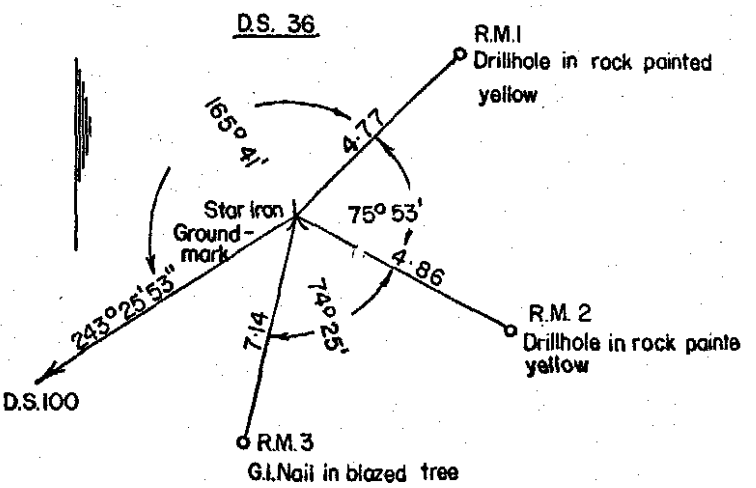
5 cm

DISTANCES SHOWN ARE METRES

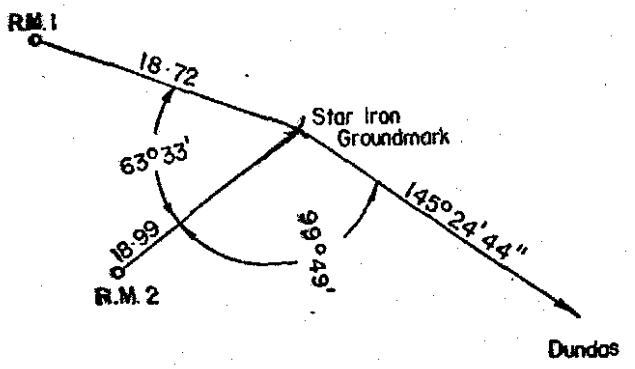
D.S. 8



D.S. 36

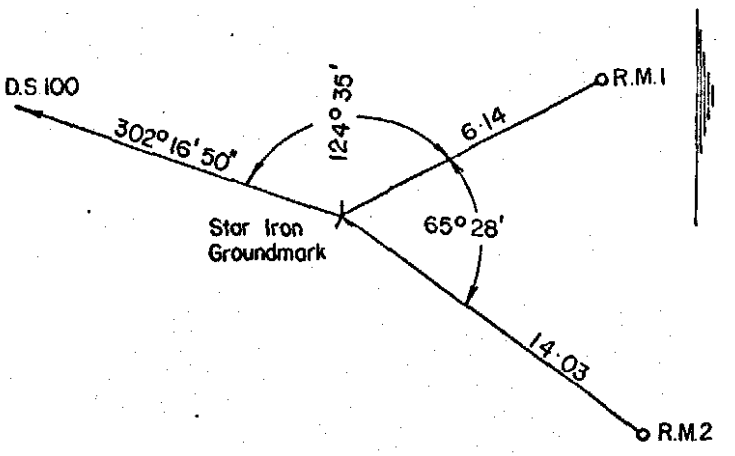


D.S. 18



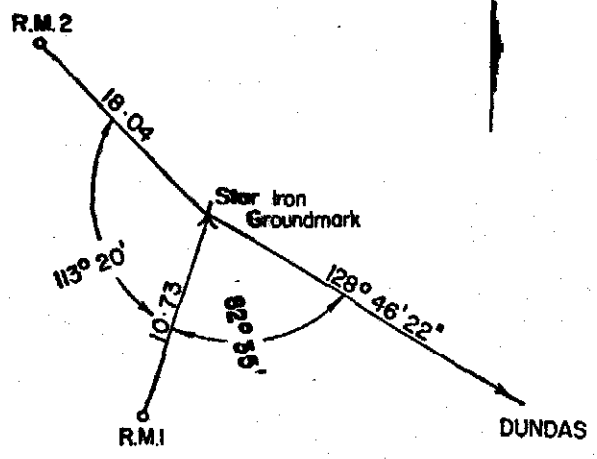
R.M.'s are G.I.Nails in Blazed Trees

D.S. 24



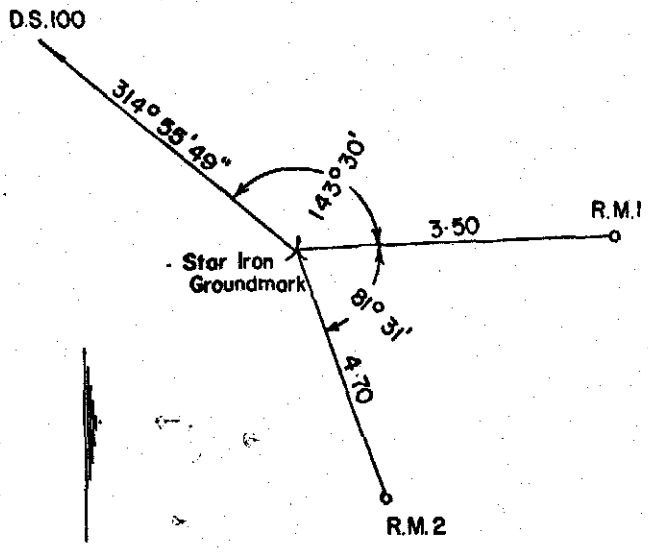
R.M's are G.I. Nails in Blazed Trees

D.S.7



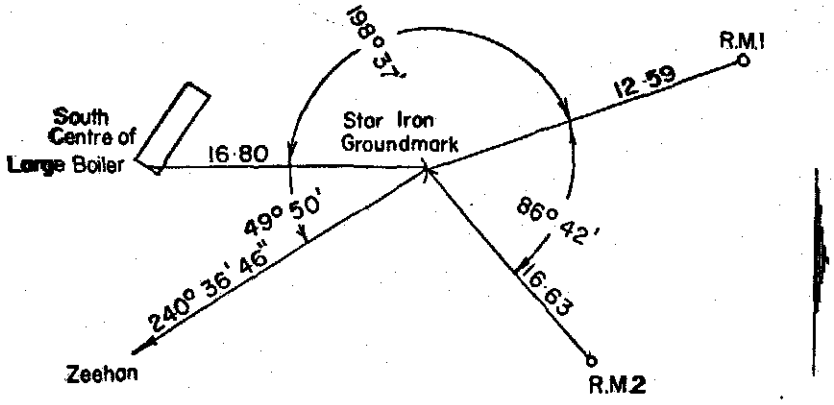
R.M's are G.I. Nails in Tree Stumps

D.S. 37



R.M's are G.I. Nails in Blazed Trees

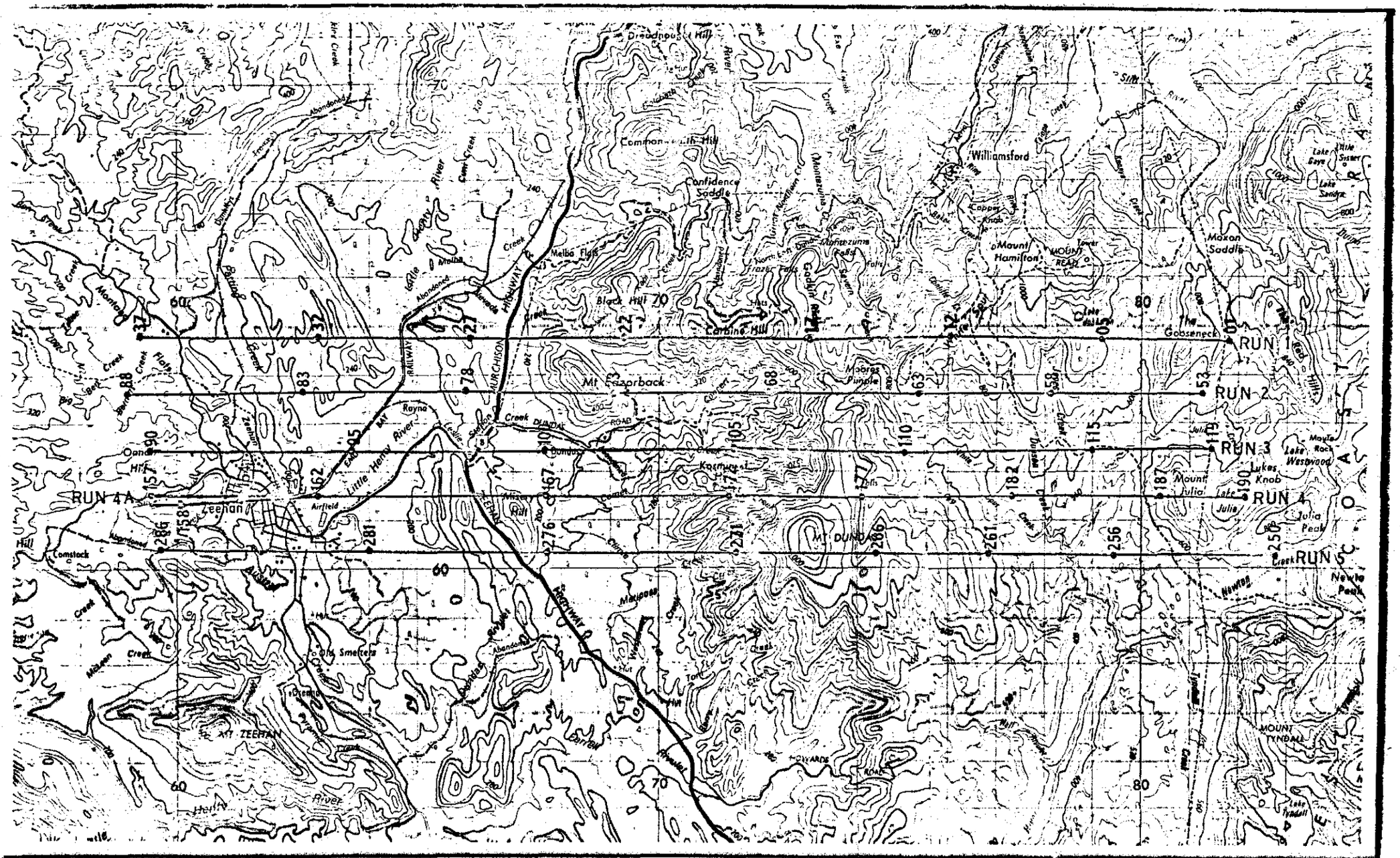
D.S. 17



R.M's are G.I. Nails in Trees

5 cm

680034



Run	Film No.	Frames	Date	Height	Scale	Focal Length
1	AAM 662	01 – 37	2-11-71	9,300' ASL	1:11000	210·07mm
2	"	53 – 88	"	"	"	"
3	"	90 – 119	"	"	"	"
4	"	158 – 190	"	"	"	"
4A	"	154 – 157	"	"	"	"

Run	Film No.	Frames	Date	Height	Scale	Focal Length
5	AAM 682	250 – 286	2-11-71	9,300' ASL	1:11000	210·07mm

AUSTRALIAN AERIAL MAPPING PTY LTD

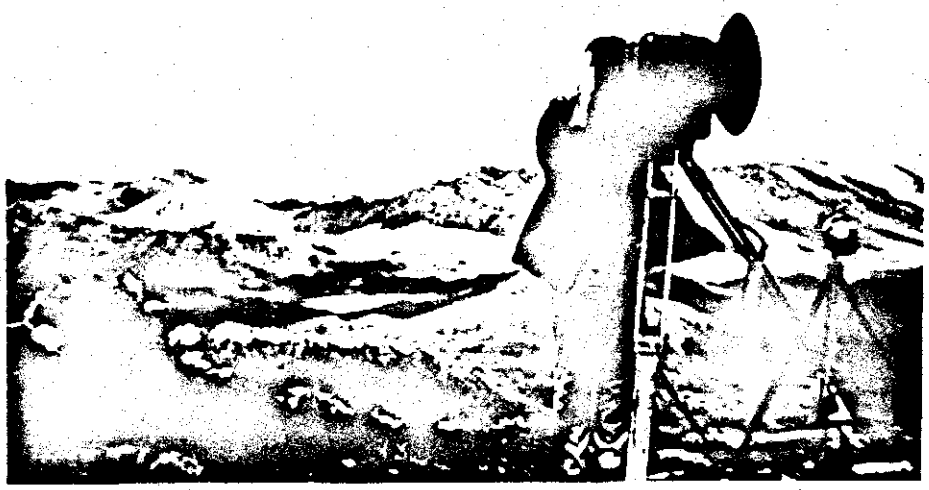
5 cm

Flown by TAS. LANDS

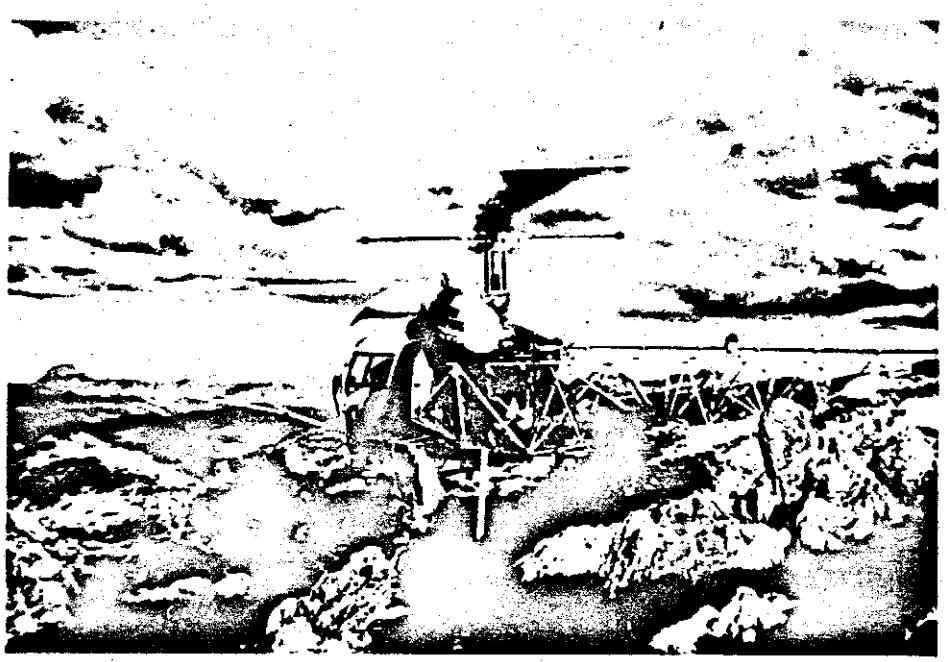
Sheet of

Drawing No 1178/D

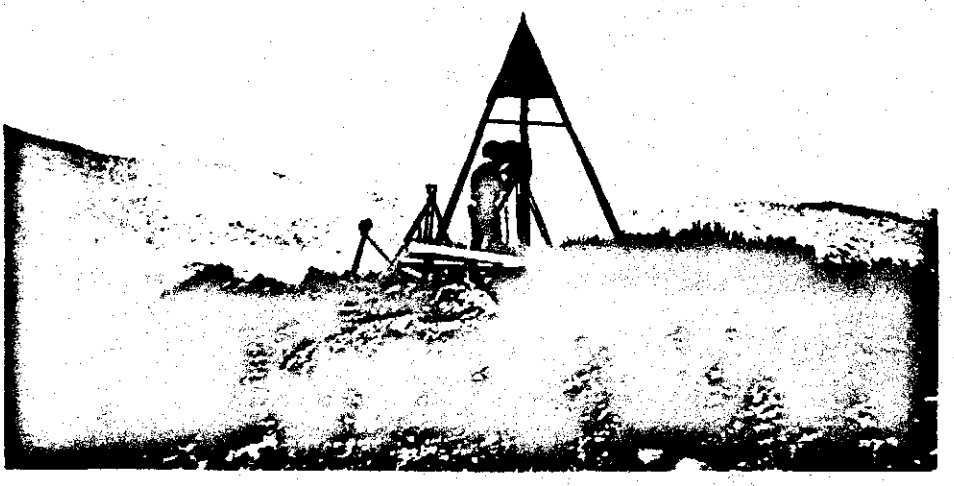
12. PHOTOGRAPHIC RECORD, FIELD ACTIVITIES



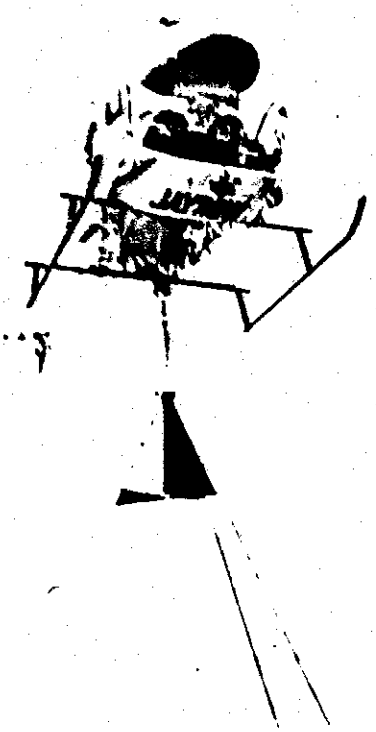
Tellurometer Observations - Mt. Read



Bell 47G3B2 Helicopter - Mt. Read



Observations at Mt. Zeehan



Transporting beacon onto Mt. Dundas. Beacon supplied by Renison Ltd.

369 500 Metres East

370 000

370 500

371 000

371 500

372 000

372 500

373 000

373 500 Metres East

5 366 500 Metres North

5 366 000

5 365 500

5 365 000

5 364 500

5 364 000 Metres North

1021 1020 1019 1018 1017 1016 1015

Corbine Hill

DENSE TIMBER

DENSE TIMBER

PP 21 2021

PP 20 2020

PP 19 2019

PP 18 2018

PP 17 2017

PP 16 2016

3001

3002

NOTES

AUSTRALIAN AERIAL MAPPING PTY LTD

	1	
2	3	4
5	6	7

DUNDAS

GEOPHOTO RESOURCES CONSULTANTS

5 cm

SCALE	1 5000	GRID	A M G
CONTOUR INTERVAL	5 METRES	HEIGHT DATUM	STATE
PHOTOGRAPHY	2-11-71	DATE COMPILED	JAN 1973
SHEET	1178 - B1 - 1		

680038

73-954

2110

355 500 Metres East
356 000
356 500
357 000
357 500
358 000
358 500
359 000
359 500 Metres East
5 364 000 Metres North
5 363 500
5 363 000
5 362 500
5 362 000
5 361 500 Metres North

NOTES

AUSTRALIAN AERIAL MAPPING PTY. LTD.

	1	
2	3	4
5	6	7

DUNDAS

GEOPHOTO RESOURCES CONSULTANTS

5 cm

SCALE	1 : 5000	GRID	A.M.G.
CONTOUR INTERVAL	5 METRES	HEIGHT DATUM	STATE
PHOTOGRAPHY	2-11-71	DATE COMPILED	JAN. 1973
SHEET	1178 - B1 - 2		

680039

73-954

2111

369 500 Metres East | 370 000 | 370 500 | 371 000 | 371 500 | 372 000 | 372 500 | 373 000 | 373 500 Metres East

5 364 000 Metres North

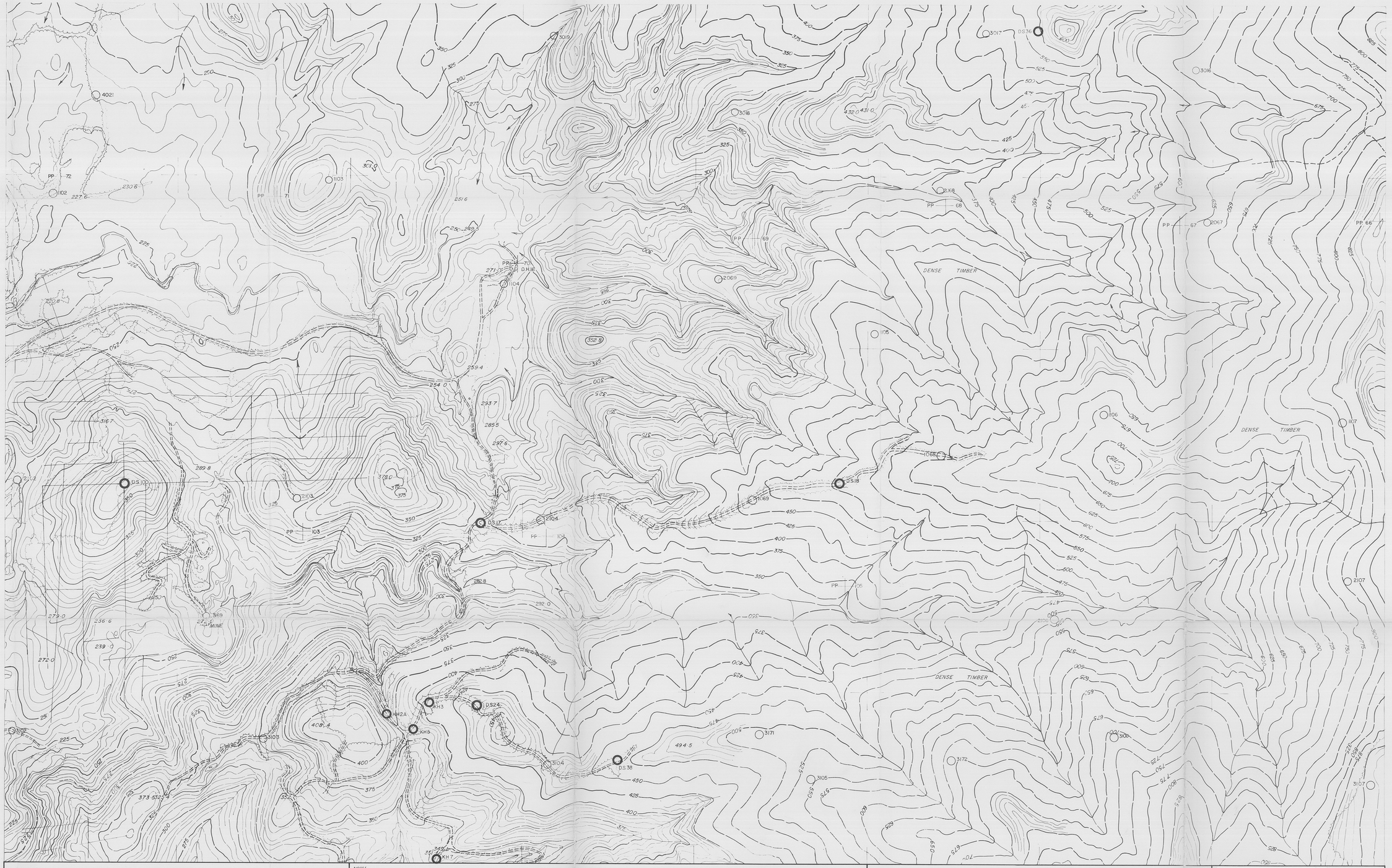
5 363 500

5 363 000

5 362 500

5 362 000

5 361 500 Metres North



NOTES

AUSTRALIAN AERIAL MAPPING PTY. LTD.

	1	
2	3	4
5	6	7

DUNDAS

GEOPHOTO RESOURCES CONSULTANTS

5 cm

SCALE	1 : 5000	GRID	A.M.G.
CONTOUR INTERVAL	5 METRES	HEIGHT DATUM	STATE
PHOTOGRAPHY	2-11-71	DATE COMPILED	JAN. 1973
SHEET	1178 - B1 - 3		

680640

73-954

2112

NOTES

1		
2	3	4
5	6	7

AUSTRALIAN AERIAL MAPPING PTY. LTD.

DUNDAS

GEOPHOTO RESOURCES CONSULTANTS

5 cm

SCALE	1 : 5000	GRID	A.M.G.
CONTOUR INTERVAL	5 METRES	HEIGHT DATUM	STATE
PHOTOGRAPHY	2-11-71	DATE COMPILED	JAN. 1973
SHEET	1178 - B1 - 4		

680041

73-954

2113

365 500 Metres East | 366 000 | 366 500 | 367 000 | 367 500 | 368 000 | 368 500 | 369 000 | 369 500 Metres East

5 361 500 Metres North

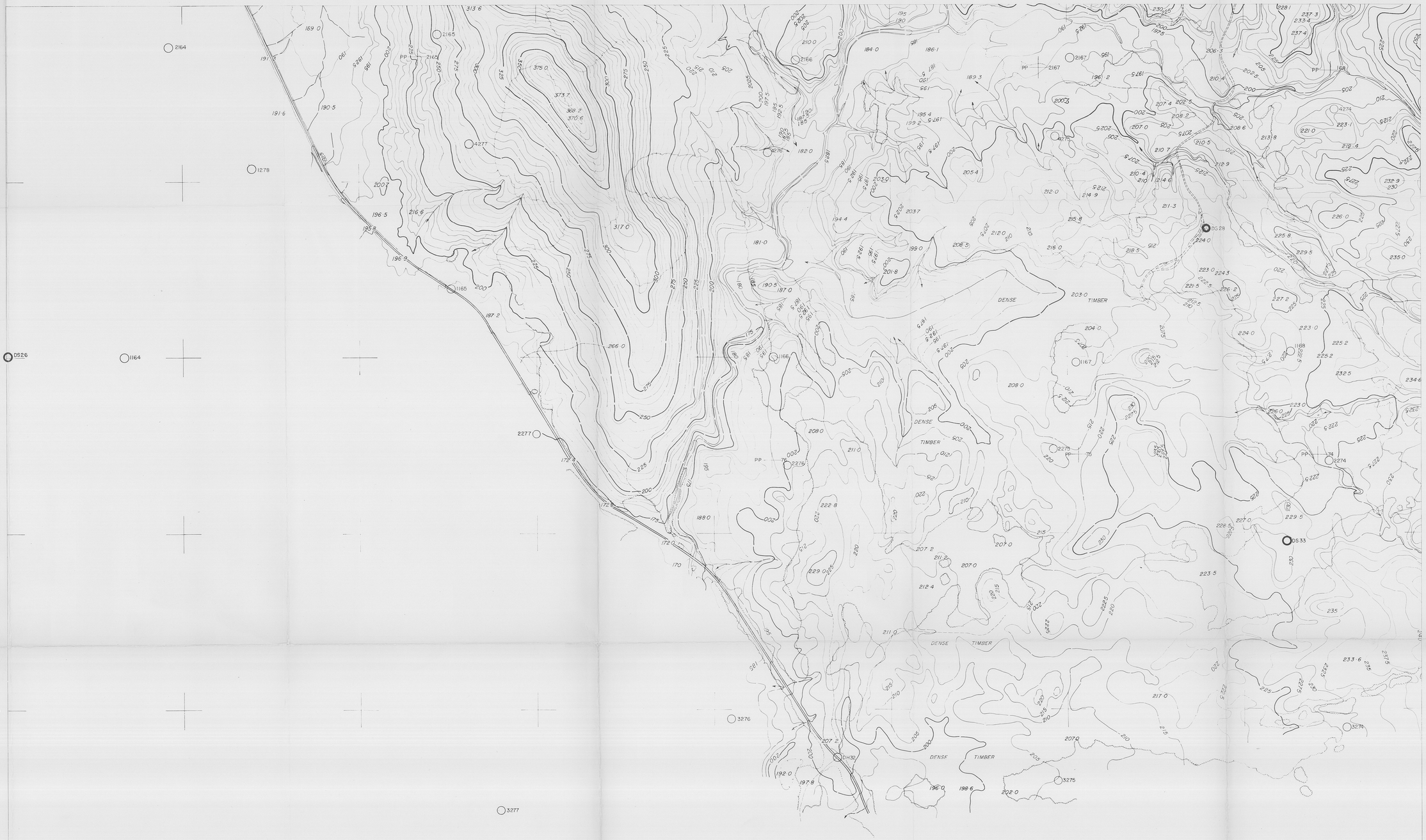
5 361 000

5 360 500

5 360 000

5 359 500

5 359 000 Metres North



NOTES

	1	
2	3	4
5	6	7

AUSTRALIAN AERIAL MAPPING PTY. LTD.

DUNDAS

GEOPHOTO RESOURCES CONSULTANTS

5 cm

SCALE	1 : 5000	GRID	A.M.G.
CONTOUR INTERVAL	5 METRES	HEIGHT DATUM	STATE
PHOTOGRAPHY	2-11-71	DATE COMPILED	JAN. 1973
SHEET	1178 - B1 - 5		

680042

73-954

2114

369 500 Metres East

370 000

370 500

371 000

371 500

372 000

372 500

373 000

373 500 Metres East

5 361 500 Metres North

5 361 000

5 360 500

5 360 000

5 359 500

5 359 000 Metres North

DENSE TIMBER

DENSE SCRUB

DUNDAS
1107.2

D.S.22A

D.S.37

D.S.25

1169 1170 1171 1172 1173 1174 2174 2172 2273 2272 2271 2270 2269 2268 2267 3273 3272 3271 3270 3269 3268 3267

NOTES

AUSTRALIAN AERIAL MAPPING PTY. LTD.

	1	
2	3	4
5	6	7

DUNDAS

GEOPHOTO RESOURCES CONSULTANTS

5 cm

SCALE	1 : 5000	GRID	A.M.G.
CONTOUR INTERVAL	5 METRES	HEIGHT DATUM	STATE
PHOTOGRAPHY	2-11-71	DATE COMPILED	JAN. 1973
SHEET	1178 - B1 - 6		

680043

73-954

2115

373 500 Metres East | 374 000 | 374 500 | 375 000 | 375 500 | 376 000 | 376 500 | 377 000 | 377 500 Metres East

5 361 500 Metres North

5 361 000

5 360 500

5 360 000

5 359 500

5 359 000 Metres North

680044

5 359 000 Metres North

NOTES

	1	
2	3	4
5	6	7

AUSTRALIAN AERIAL MAPPING PTY. LTD.

DUNDAS

GEOPHOTO RESOURCES CONSULTANTS

5 cm

SCALE	1 : 5000	GRID	A.M.G.
CONTOUR INTERVAL	5 METRES	HEIGHT DATUM	STATE
PHOTOGRAPHY	2-11-71	DATE COMPILED	JAN. 1973
SHEET	1178 - B1 - 7		

73-954

2116