

SECTION V

CONCLUSION

From this evaluation of three existing or proposed skifields in the Wakatipu district, it is clear that the introductory hypothesis remains valid.

None of the "Stated Problems" with Coronet Peak can be overcome by development of the Rastus Burn, however, further development of Coronet Peak and the Mount Cardrona field would overcome much of the former field's deficiencies and provide a regional balance of skier opportunity.

Specific Conclusions

1. Reliability of Snow Cover

(All three fields are dependent on the passage of the same cold fronts for their snow precipitation):

Coronet Peak:	Snow cover has been highly variable from the fields inception
Rastus Burn:	No more reliable for snow cover than Coronet Peak
Mount Cardrona:	Due to a snow wedge effect, this field is likely to retain a greater depth of snow than Coronet Peak. It is therefore less vulnerable to closure due to inadequate snow cover.

2. Length of Ski Season

Coronet Peak :	<u>Start of season</u> highly variable, ranging from late May to mid/late July. Directly related to adequacy of snow cover. <u>End of season</u> consistently at the end of September and not normally related to snow cover.
Rastus Burn :	No significant difference from Coronet Peak in length of season.
Mount Cardrona :	<u>Start of season</u> <u>may</u> be marginally earlier than Coronet Peak, due to snowfall at higher elevation. <u>End of season</u> significantly later than Coronet

Peak due to greater snow retention. Potential for season to be extended up to one month (i.e. end October).

3. Need for Extended Ski Seasons

There are strong commercial and skier needs for earlier ski seasons than can be normally provided at Coronet Peak. However, it is most improbable that neither the Rastus Burn or Mount Cardrona could meet such needs on a reliable basis.

There is no established skier need for later (spring) skiing as the opportunity for such has existed at Coronet Peak for many years without utilisation.

4. Slope Capacities

- | | |
|-----------------|---|
| Coronet Peak: | Overall is underutilised, and could accommodate at least twice the existing usage. Its primary characteristic is the surplus of intermediate slopes, but is notable for a major deficiency in novice slopes and to a lesser extent in low-intermediate terrain. |
| Rastus Burn: | Can provide less than one fifth the developable skier capacity of Coronet Peak and is confined to beginner slopes. |
| Mount Cardrona: | Extensive novice and low intermediate slopes give the means of providing complimentary terrain to that of Coronet Peak and correcting the slope imbalances of the Wakatipu district. |

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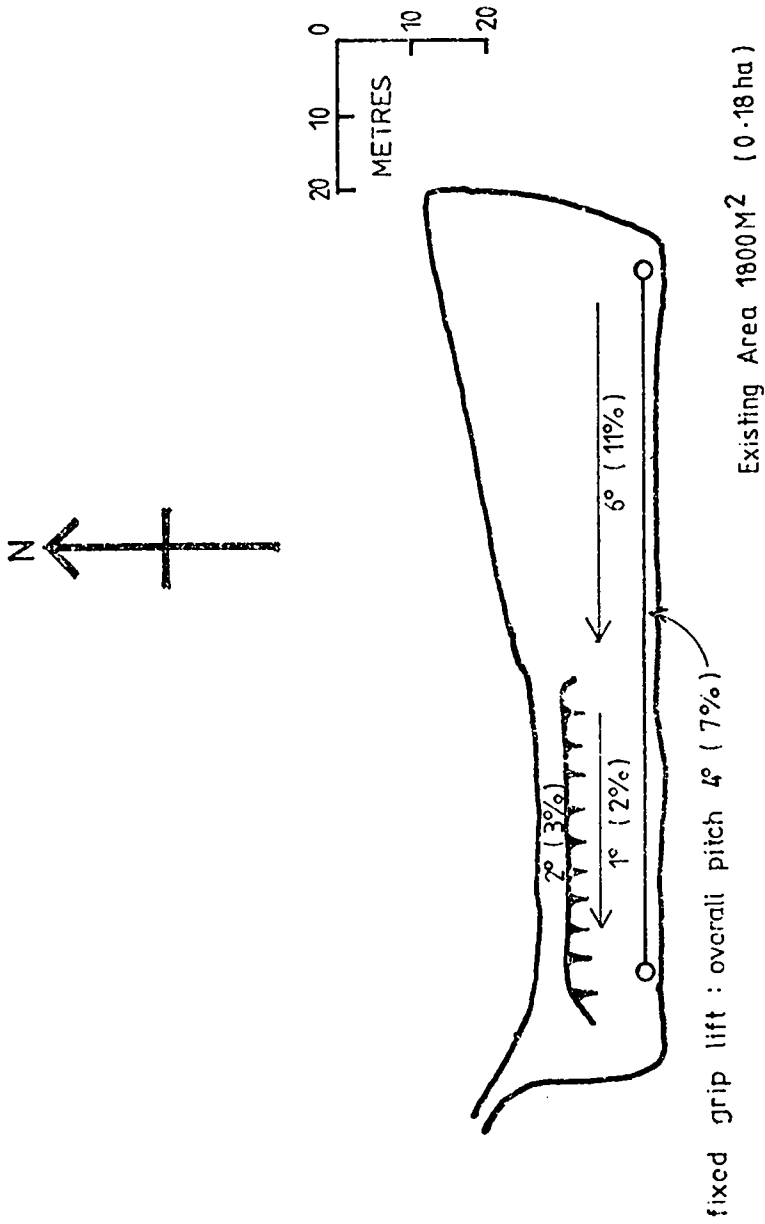
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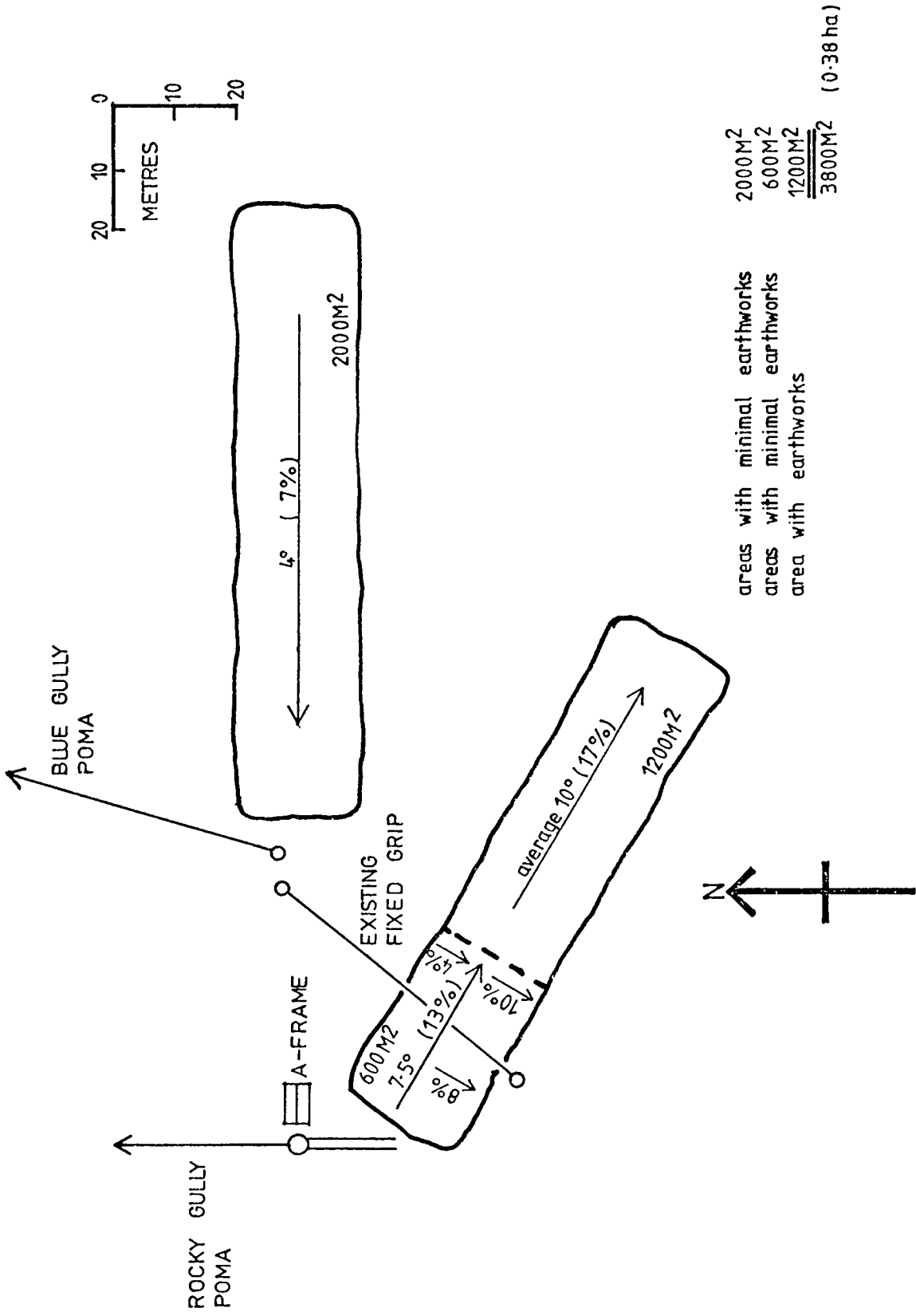
APPENDIX 1

SNOW CONDITIONS AND DURATION OF SKI SEASON : CORONET PEAK 1938-1979^{6,9,12,22,23}

<u>Year</u>	<u>Snow Conditions</u>	<u>Season Duration</u>
1938	Snow-line 15-20 min climb from Skippers Saddle	Until late September
1939	'Great Snowstorm' Mount Cook Co. promotes skiing on Crown Range	
1940	Mount Cook Co. puts ski hut near Skippers Saddle Skiable snow 1 hour's walk above Saddle	
1941		
1942		
1943	'an abundance of good snow'	
1944		
1945	'excellent', 'Bad conditions late August' Snowline 1190 m	Until October
1946	'Good conditions' last week July and first week August	
1947	First rope two installed: lower terminal 1068 m.	
1948	'Very good powder all July' 'Snow late arriving, high snow level' Tow moved higher up mountain	Late June until late September
1949	'A light snow year' Tow shifted again and lower terminal 1190 m	29 June until 1 October (first snow)(heavy thaw)
1950	'Exceptional deep powder'	
1951	'weeks of powder' 'grand skiing' 'early snow falls'	23 May to 30 September
1952	'Good early fall but very little further snow'	21 June onwards
1953	'temperamental'	'short'
1954	'much improved on 1953'	
1955	'very icy, rough, lack of snow, relatively poor'	Very late starting
1956	'very poor'	'shortest season yet'
1957	'very poor' 'variable'	21 July onwards

1958	'quite good compared to 1956/57' 'snow late' 'high snow level'	Late starting, very short
1959	'best for several years'	May until end September
1960	'not as heavy as last year' 'moderately good season'	
1961	'best for many years'	Until early October
1962		Late starting; until early October
1963	'one of best on record' 'good supply of snow'	Early June to late September
1964	'disappointing' 'insufficient mid August' (top half only) Double chair lift installed	First week of August onwards
1965	'very good' 'excellent'	
1966	'most disappointing' 'Only patches 31 July'	
1967	'Worst on record!' Rocky Gully Poma installed	
1968	'Excellent' 'abundance of snow'	
1969	'Good but not as abundant as 1968' Happy Valley Poma installed	
1970		
1971	905mm snowfall	Early start 5 May, then 30 June on
1972	'abundance of snow' 1930 mm snowfall	12 June until late September
1973	1194 mm snowfall	mid-June until late September
1974	Triple chairlift installed 1626 mm snowfall	late June until late September
1975	'poor on lower slopes' 'poor' 787 mm snowfall	early July until mid- September
1976	1880 mm snowfall	late June until late September
1977	991 mm snowfall	19 June until 2 October
1978		8 July to 11 August, 19 August to 27 September
1979		17 July until 30 September

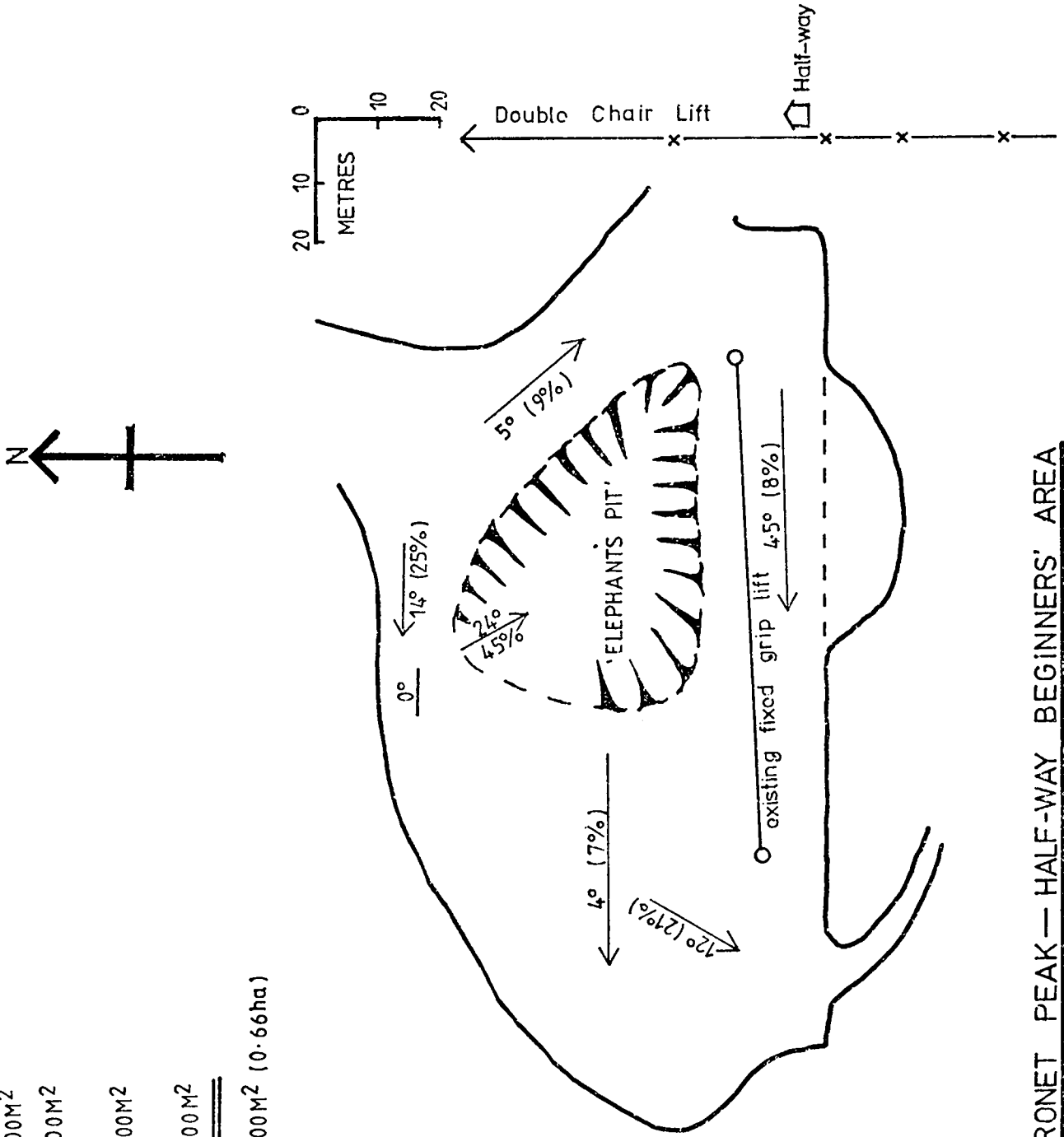




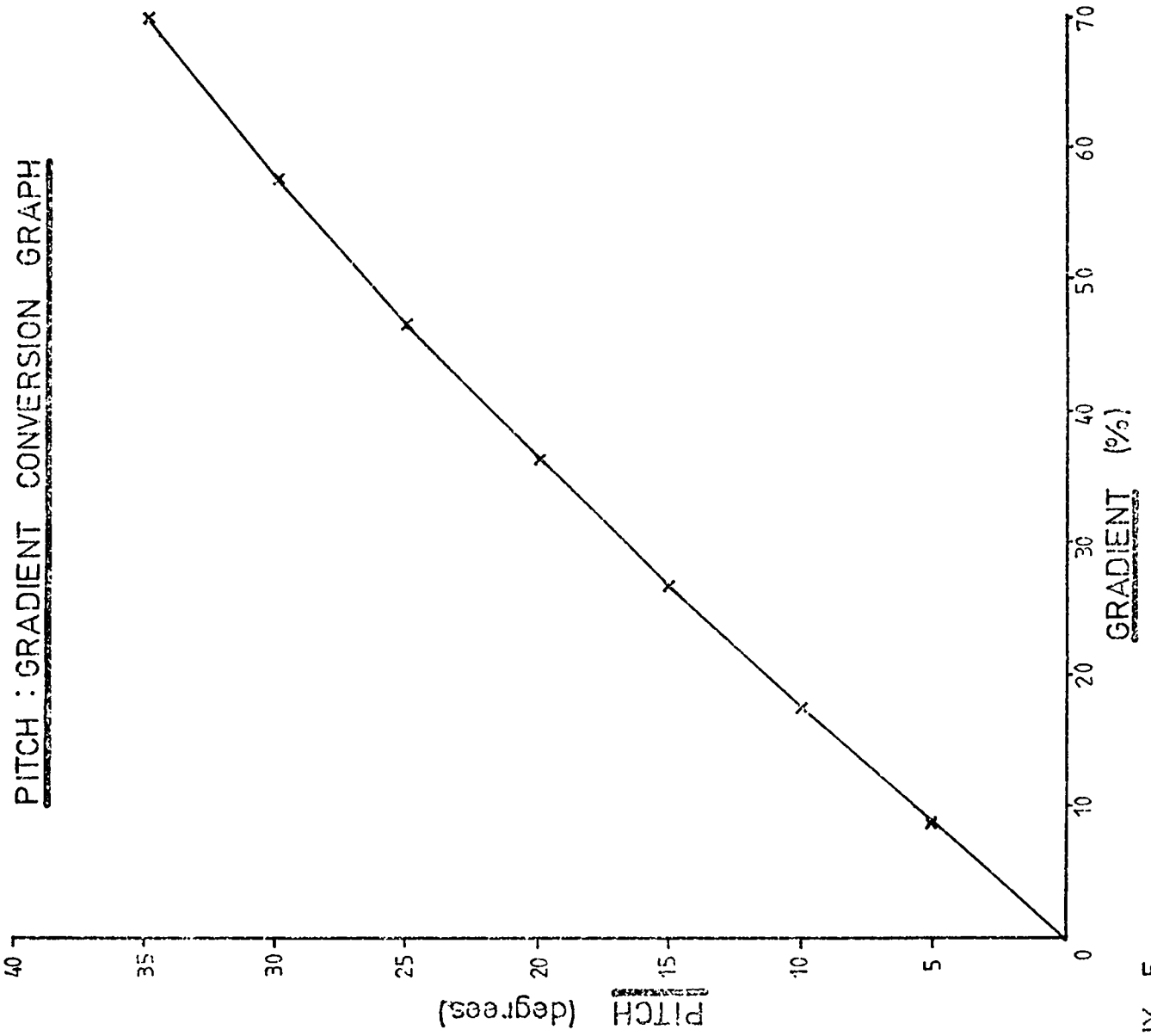
areas with minimal earthworks 2000M²
 areas with minimal earthworks 600M²
 area with earthworks 1200M²
 3800M² (0.38 ha)

APPENDIX 3 CORONET PEAK — POTENTIAL BEGINNERS' AREAS AT ROCKY GULLY

<u>AREAS</u>	Existing lift serviced	1100M ²
	Existing available (no earthworks)	1500M ²
	Available with minor earthworks	2200M ²
	Available with filling of elephants pit	1800M ²
		===== 6600M ² (0.66ha)



PITCH : GRADIENT CONVERSION GRAPH



APPENDIX 6

MAXIMUM POTENTIAL WINTER RADIATION RECEIVED ON THREE SKI RUNS IN THE
RASTUS BURN AND ON CORONET PEAK

Radiation Units = Langleys (ly) = calories/cm²
Zero atmosphere and latitude 46° south

LIFT 1: Wye Saddle to Valley Floor of Rastus Burn

Slope Distance (% of total)	Aspect	Gradient (%)	Langleys/day ²⁴	
			21 June	7 August
14	NNW	55	585	705
4	NNW	28	440	565
6	NNW	43	530	650
7	NNW	30	454	578
16	NNW	40	512	633
24	NNW	19	382	510
11	NW	12	310	438
18	NW	5	270	400
Weighted Means:			418	544

LIFT 2: Shadow Basin

Slope Distance (% of total)	Aspect	Gradient (%)	Langleys/day	
			21 June	7 August
9	ENE	5	255	385
11	ENE	55	387	512
22	ENE	44	365	392
4	ENE	60	394	520
7	ENE	2	245	375
7	ENE	44	365	392
14	ENE	10	271	401
26	ENE	60	394	520
Weighted Means			344	442

LIFT 3: Sugar Bowl

Slope Distance (% of total)	Aspect	Gradient (%)	Langleys/day	
			21 June	7 August
16	SW	32	190	207
14	SW	14	160	280
13	SW	14	160	280
7	SW	30	96	213
13	SW	14	160	280
18	SW	50	49	147
Weighted Means			110	187

CORONET PEAK:

Period
June-August

Mean Gradient of 45 measured south facing slopes
= 40% (23.5°)

	21 June	7 August	
Langleys/day	0	58	11

Greengates Area : SW aspect
Mean Gradient = 37% (20°)

	21 June	7 August	
Langleys/day	75	188	117

Calculation of Weighted Mean Radiation Received

195 ha with south aspect = 81% of total area
45 ha with south-west aspect = 19% of total area

240 ha

Weighted mean (ly/day)	21 June	7 August	
	14	83	31

Comparison of Maximum Potential Radiation Received:

Coronet Peak and Rastus Burn:

	21 June	7 August
Coronet Peak (weighted mean)	14	83 ly/day
Aspect : south, south-west		
Rastus Burn (mean of 3 ski runs)	300	400
Aspect : east-north-east north-north-west north west, north south-west		
Rastus : Coronet	x 21	x 4.7

APPENDIX 7

CHRONOLOGY OF EVENTS: RASTUS BURN SKIFIELD PROPOSAL

October	1973	Mount Cook Company made application for lease within Rastus Burn; declined by Land Settlement Board
September	1974	Reapplication supported by original EIR; declined by Land Settlement Board "At this stage the Board was generally not convinced that the site applied for was the best one and that other areas could be more suitable" ²⁵ . Board decides to institute a land use study of the whole Remarkables-Hector Mountains.
December	1975	Company updates EIR and submits for audit
April	1976	Commission's Audit recommends that the proposal should not proceed in the form described in the EIR, and that the Land Settlement Board consider the overall need for further skifields in the region; the intrinsic suitability of the Rastus Burn as a skifield; any viable skifield alternatives
October	1976	Company publishes a commentary on EIR Audit
December	1976	Revised application by Company for lease from Land Settlement Board
March	1977	Remarkables Study Team's report published, but not released until June. Team recommends that in balance with broader land uses, only the Doolans Basin is suitable for further skifield investigation ²⁶
June	1977	Concurrent with Study Team's Report, Company releases Report on Investigations following the EIR
September	1977	Land Settlement Board approves in principle Company's application to establish a skifield in the Rastus Burn, subject to planning consents
December	1978	Company applies to Lake County Council for planning consent 52 objections received
April	1979	Hearing of objections before County Planning Committee
June	1979	County grants application subject to 29 conditions
April	1980	Appeal to Planning Tribunal by Remarkables Protection Committee disallowed