

SECTION IV

EVALUATION OF MOUNT CARDRONA SKIFIELD

On 3 November 1979 I visited the area of this recent development to do a slope analysis with the Branch/Rowan slope classifications. The initial development is confined to a south-east facing basin from 1585 to 1830 m with an approx area of 14 ha to be serviced by a beginners' tow, a platter lift and a chairlift. The total developable area in this basin is approx 30 ha.

The terrain consists of gently undulating slopes with average gradients between 15% and 26%. This is predominantly novice terrain with shorter low intermediate pitches available. There is a good lateral progression of ability levels across the basin. When viewed from below the beginner slopes are on the left with novice slopes occupying the centre, and low intermediate on the lower right.

Future plans are for a chairlift to service the low intermediate slopes and for a T-bar lift to service extensive intermediate slopes down to an elevation of 1250 m. Long term, the development company sees potential for two more chairlifts on intermediate terrain in an adjacent basin further to the north¹⁹.

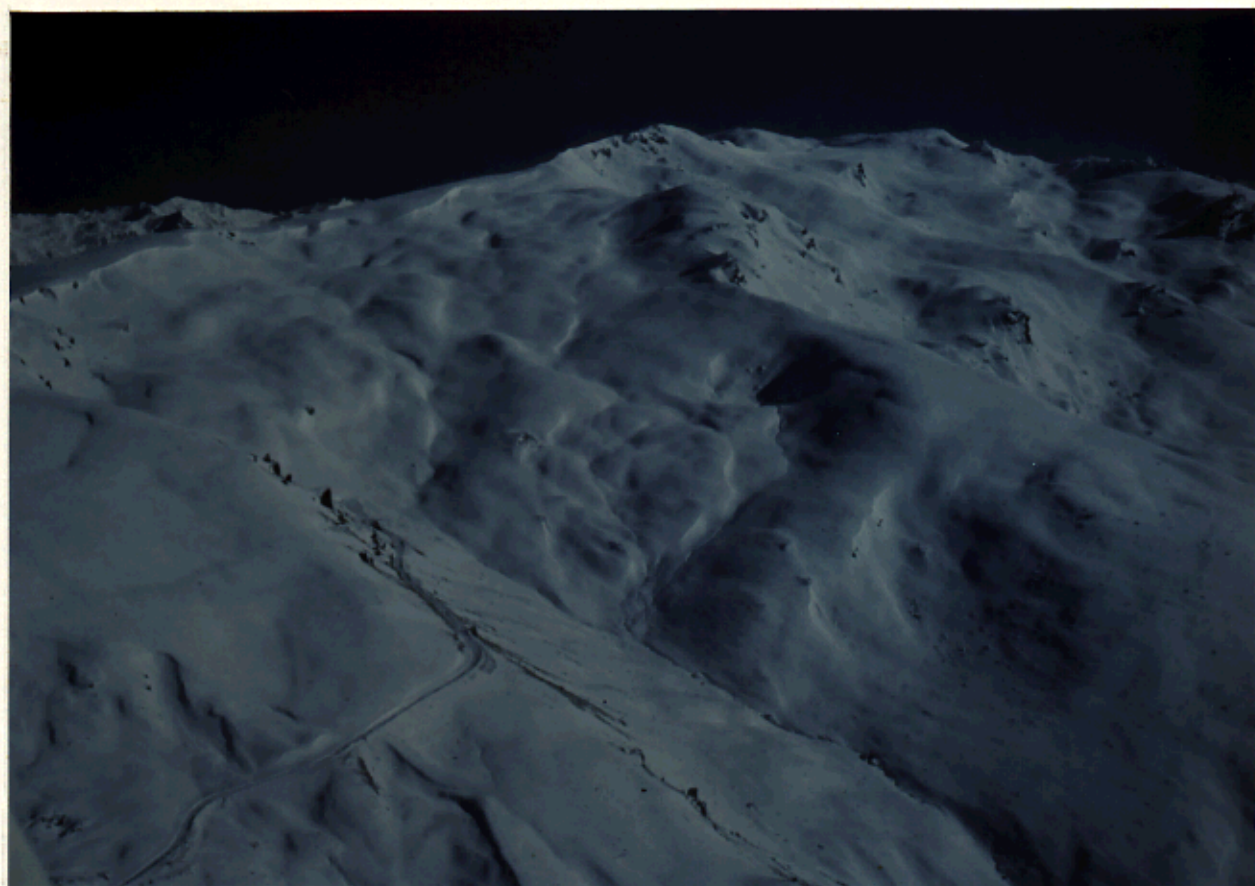
The south-east aspect is probably the most favourable aspect possible for a skifield. This aspect is more shaded during early afternoon when air temperatures normally reach a peak. I have not visited this field mid-season (August) however, on 3 November 1979 the consistent snowline was at 1585 m which was still below the lower terminals for the three lifts planned in the initial development. Due to their similar aspects, I would expect the consistent snowline to be similar to that at Coronet Peak (approx 1190 m). The developer's future plans for an intermediate T-bar with a lower terminal at 1250 m adds weight to my expectation.

The area of the initial development is therefore 400 m higher in elevation than the lowest lift terminal at Coronet Peak.

As snow accumulation increases with elevation in the form of a "snow wedge" a distinctive characteristic of snow storage on temperate mountains¹⁵, it could be expected that on different mountains with similar aspects and snowlines that the higher mountain would accumulate more snow

than the lower. This is, of course, quite different from the Mount Cook Company's assumption that higher elevation in the case of the Rastus Burn, but dissimilar aspects and snowline provides a valid basis for comparison.

PHOTOGRAPH 10



MOUNT CARDRONA SKIFIELD
25 August 1979

P Dale

Initial skifield development is to be confined to the extensive south-east facing novice to low intermediate Little Meg basin (centre to left). Future options include T-bar access below the existing road terminal (lower right) and chair lifts in the adjacent intermediate Pringles Creek basin (upper right).