CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for October 1957—continued

	Height of Station Above	Air Temperatures in Degrees (Fahrenheit)								Rainfall in Inches					
Station		Means of		Mean of A	Differ- ence	Absolute Maximum and Minimum			Total	No.	Differ- ence	Maximum Fall		Bright Sun- shine	
	M.S.L.	A Max.	B Min.	and B	From Normal	Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date	
Eyrewell Ashley Forest Darfield Harewood Christchurch Wigram Akaroa Lincoln Highbank The Hermitage Winchmore Haast Ashburton Fairlie Timaru Adair Tara Hills, Omarama Milford Sound Waimate Naseby Queenstown Cromwell Ophir Moa Creek Earnscleugh Waipiata Alexandra Manorburn Dam†	20 200 2,300 1,100 720 1,000 1,400 500 1,550 520	°F. 61·9 61·0 62·4 62·7 61·6 61·8 60·9 57·3 53·5 59·8 56·1 64·2 61·3 62·4 59·8 54·9 61·7 55·5 58·6 60·5 7 55·3 61·6 65·3 61·6	°F. 39·6 42·8 39·4 42·1 43·1 43·2 44·4 40·0 41·2 34·5 39·0 40·9 40·5 37·3 42·0 42·1 40·7 36·8 33·3 38·4 36·2 40·1 33·1	°F. 50·8 51·9 50·7 52·2 52·9 52·4 53·1 50·4 49·4 49·4 49·3 52·2 51·8 44·7 49·4 50·0 45·6 50·4 42·2	$\begin{array}{c} -0.1*\\ -0.9\\ -0.2\\ +0.0*\\ -1.2\\ -1.5\\ \end{array}$ $\begin{array}{c} -3.3\\ -1.6*\\ -2.1*\\ +0.0\\ -0.8\\ -0.5\\ +0.4*\\ \end{array}$ $\begin{array}{c} -2.1\\ -0.4\\ -3.3\\ -1.7*\\ -3.3\\ -2.0\\ -2.1 \end{array}$	69·4 66·3	18 18 18 18 17 18 18 18 18 17 18 28 17 28 17 19 19 17 17	°F. 31 0 30 0 28 9 30 0 30 1 35 0 27 0 30 22 27 0 30 8 35 5 33 0 25 0 33 7 35 7 34 0 32 2 24 8 32 8 30 3 22 4 8 32 8 30 3 22 9 30 5 30 5 30 5	16, 24 23 21 21 21 21 21 21 5 5, 17 18, 21 5, 14 5, 21 21 21 21 21 7 7 7 7 7 7 7 7 7 7 7 7 7	In. 1 · 42 1 · 05 1 · 69 1 · 14 1 · 05 1 · 00 3 · 78 1 · 51 17 · 66 1 · 67 2 · 27 2 · 24 1 · 25 3 · 25 3 · 37 5 · 25 1 · 96 1 · 67 2 · 27 2 · 24 1 · 25 1 · 96 1 · 65 1 · 85 1 · 65 1 · 65	11 12 15 14 10 10 15 12 16 22 15 23 14 12 11 11 11 26 14 14 14 14 14 14 14 14 14 16 16 17 18 18 18 18 18 18 18 18 18 18 18 18 18	$\begin{array}{c} -1 \cdot 85^* \\ -1 \cdot 59^* \\ -1 \cdot 00 \\ \hline -0 \cdot 90 \\ -0 \cdot 80^* \\ +1 \cdot 34^* \\ -0 \cdot 21 \\ \hline +10 \cdot 16 \\ -0 \cdot 71^* \\ +2 \cdot 62^* \\ -0 \cdot 75 \\ -0 \cdot 65 \\ +0 \cdot 31 \\ -0 \cdot 74^* \\ \hline +6 \cdot 94 \\ -0 \cdot 15 \\ \hline +1 \cdot 89 \\ +0 \cdot 63^* \\ -0 \cdot 02 \\ \hline +0 \cdot 64^* \\ +0 \cdot 02 \\ +0 \cdot 64^* \\ +0 \cdot 02 \\ +0 \cdot 61 \\ +0 \cdot 44 \\ \end{array}$	0·49 0·79 4·09 0·72 1·64 0·58 0·98 0·70 0·41	19 19 19 19 14 19 13 4 1 10 19 17 4, 19 10 4 25 19 12 18 8 8 11 13	Hrs 225 201 234 222 119 205 188 160 148 166
Garston Roxburgh Hydro Mid Dome Moa Flat, West Otago Taieri Musselburgh, Dunedin Tapanui	1,009 350 1,252 1,345 80 5	56·0 60·3 55·6 53·5 58·9 57·7 56·0	36·9 41·0 37·2 37·5 39·9 43·5 39·2	46·4 50·6 46·4 45·5 49·4 50·6 47·6	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	69·0 73·5 70·9 66·2 68·4	17 17 17 17 17 16 11	28 · 6 32 · 0 29 · 3 30 · 9 30 · 2 33 · 5 31 · 5	7 12 12 4 21 3 4	4·27 2·17 5·48 2·64 1·98 2·82 3·71	20 16 23	+0·63° +0·35° -0·08° +0·45	0·76 0·48 0·83 0·44	13 13 13 13 13 13 13	124 127
East Gore Gore Otautau Pebbly Hills Invercargill Invercargill Invercargill Invercargill	240 180 150 8	58·3 56·1 57·3 56·1 55·4	39·3 38·6 38·3 41·3 39·7	48·8 47·4 47·8 48·7 47·6	$\begin{vmatrix} -2 \cdot 2 \\ -2 \cdot 7 \\ -2 \cdot 0 \\ -1 \cdot 4 \end{vmatrix}$	71·0 73·0 70·0 68·9	17 17 17 17 17	31·0 31·0 29·0 33·8 31·3	3 12 21 21 21	4·66 5·77 5·15 6·11 6·24	21 22 23	$ \begin{array}{r} +1.81 \\ +2.36 \\ +2.22 \\ +2.56 \\ +2.76 \end{array} $	0·63 0·85 0·70	12 30 13 30 30	106 120 122
				†'	Observat			ys.					1		
Erong Josef Sont 1057	450	1.50.0	140.0	1 40.0	LATE	RETU		24.0	1 1	0.31	1.10	1	1 2.06	25	
Franz Josef, Sept., 1957 Tara Hills, Sept., 1957	4 600	58·8 57·3	33.6	49·8 45·4	+1:3*	64.1	22 23	34·9 23·0	1 1	$\begin{vmatrix} 8 \cdot 21 \\ 0 \cdot 93 \end{vmatrix}$	12	-0.58	* 3·86 0·34	25 27	182

Note—At stations where departures from normal have an asterisk, the temperature record has been maintained for less than ten years, the rainfall record for less than twenty years. Rainfall normals have been revised and now refer to the standard period 1921–50. Where observations are not available for the whole period, or where the site of the rain gauge has been changed, the normals are partly interpolated.

Notes on the Weather for October 1957

General: October was windy and cool. Winds from a westerly quarter were even stronger and more frequent than is usual for the time of the year. Accordingly, conditions were somewhat too wet in western districts and also in Southland, adversely affecting growth. Gales were reported in many districts from the 11th to the 14th and also on the 31st; on both occasions very deep depressions were passing close to Southland.

Rainfall: Rainfall was above normal over the greater part of the country, and departures exceeded 50 per cent over the high country of the South Island, in Southland, and over most of Taranaki. Parts of the Canterbury high country received double the usual

Totals were below normal in eastern districts north of Oamaru, including the Bay of Plenty. Departures were mainly 30 to 40

per cent. Many Many thunderstorms were reported, especially in western districts, on the first four days of the month and also from the 11th to the 14th.

Temperatures: Temperatures were below normal over the whole country, mainly by about 2 degrees. Greatest departures were recorded in southern, western, and inland districts of the South Island and also in the southern Waikato-Rotorua-Taupo area. At a few stations October was actually somewhat cooler than

Snow fell to low levels in some inland districts of Southland and Otago on the 4th and again on the 30th and 31st.

Sunshine: Sunshine was below normal in western and southern districts of the South Island and also in Taranaki. The departures exceeded an hour a day in Otago and Southland. For Gore, with 106 hours, it was the cloudiest October in forty years of records. East of the main ranges there was a slight surplus which in mid-Canterbury amounted to as much as an hour a day.

Weather Sequence: During the first three days of the month a complex and very deep depression passed to the south, causing strong to gale westerly winds. It was accompanied by heavy rain,

especially in western districts and about Cook Strait, and many thunderstorms. On the 4th the depression was centred east of the South Island, and winds turned to south-westerlies. Further rain was experienced in most districts, while snow fell in parts of South-land and Otago; more thunderstorms also occurred, especially about Cook Strait. The next three days brought rising pressures and improved weather, but a few showers were still reported in the improved weather, but a few showers were still reported in the south-westerlies.

On the 8th and 9th the passage of a trough of low pressure caused further rain in western districts. Another trough followed with somewhat similar effect, but this time a deep cyclone developed and moved on to Southland on the 13th, causing a change to southwesterly winds with some general rain. Gales and thunderstorms were again reported in many districts from the 11th to the 14th. Rising pressures brought a temporary improvement on the 15th and 16th.

On the 17th a complex trough of low pressure was approaching from the west, with deep centres west of the South Island and far to the south. Northerly winds brought considerable rain to western and northern districts of both islands. A depression soon developed over the North Island and moved eastward. The weather cleared in the south but remained unsettled in the north, and on the 20th contractive roles leaded to Coal. Striit trans. southerly gales lashed the Cook Strait area. Pressures remained low to the east for about another week, while two weak troughs crossed the country. Fair spells alternated with brief periods of light rain.

The last four days of the month brought a return once again to westerlies. At first a very deep depression passed far to the south, and soon another centre developed off the Southland coast and remained almost stationary. There were frequent periods of rain in the west, but eastern districts from Oamaru to East Cape were not affected. Gales buffeted parts of the South Island on the 31st, being exceptionally strong about Foveaux Strait.

M. A. F. BARNETT, Director.

(N.Z. Met. S. Misc. Pub. 107)