CLIMATOLOGICAL TABLE—continued

Summary of the Records of Temperature, Rainfall, and Sunshine for January, 1951-continued

Station.	Air Temperatures in Degrees (Fahrenheit).								Rainfall in Inches.						
	Height of Station above M.S.L.	Means of		Mean		Absolute Maximum and Minimum.					No.		Maximum Fall.		Bright Sun-
		A Max.	B Min.	of A and B.	Difference From Normal.	Maximum.	Date.	Minimum.	Date.	Total Fall.	of Rain Days.	Difference From Normal.	Amount.	Date.	shine.
Akaroa Lincoln	Ft. ,217 150 36	°F. 67·1 66·4 66·1 68·7	°F. 48·6 51·8 49·9 45·1	°F. 57·8 59·1 58·0 56·9	$ \begin{array}{c c} -1 \cdot 2 \\ (-3 \cdot 2) \\ -2 \cdot 2 \\ +1 \cdot 4 \end{array} $	°F. 84·5 82·0 87·8 83·9	9 9 9 6	°F. 40·2 42·8 35·9 35·0	2 4 4 27	In. 6·25 5·84 4·11 4·17	18 12 10 7	$egin{array}{c} +2 \cdot 33 \\ (+2 \cdot 98) \\ +1 \cdot 92 \\ -14 \cdot 63 \\ \end{array}$	In. $2 \cdot 02$ $1 \cdot 61$ $1 \cdot 49$ $1 \cdot 50$	24 24 24 24	Hours 168 · 1 184 · 6 194 · 9
Winchmore Haast Ashburton	$ \begin{array}{c c} ,510 \\ 626 \\ 15 \\ 323 \\ .004 \end{array} $	66·0 70·0 66·8	49·3 51·4 51·3	50·9 57·6 60·7 59·0	-1·6	85·9 85·0 73·5 85·6	9 29 9	38·4 45·9 41·0	21 4 21 4	4·62 3·60 5·25	14 9 12	-14·63 +2·68	1·92 1·33 1·95	24 24 15 24	188·1 282·3 155·1
Lake Tekapo 2 Timaru Adair Tara Hills 1	$,400\ 56\ 200\ ,600$	$69 \cdot 1 \\ 67 \cdot 4 \\ 63 \cdot 0 \\ 72 \cdot 2$	$44 \cdot 4$ $50 \cdot 2$ $50 \cdot 5$ $47 \cdot 3$	56·8 58·8 56·8 59·8	-i·9	$82.5 \\ 83.5 \\ 82.0 \\ 86.9$	7 9 9 6, 7	$30 \cdot 2$ $42 \cdot 0$ $40 \cdot 5$ $35 \cdot 0$	27 23 3 3	3.78 5.17 5.54 2.93	8 12 14 6	+2.79	$ \begin{array}{r} 1 \cdot 90 \\ 1 \cdot 90 \\ 1 \cdot 62 \\ 0 \cdot 90 \end{array} $	$24 \\ 24 \\ 24 \\ 24$	146.6
Cromwell	$\begin{bmatrix} 20 \\ 200 \\ 100 \\ 720 \\ .000 \end{bmatrix}$	$69.5 \ 66.2 \ 72.1 \ \ 72.7$	$50.6 \\ 50.1 \\ 48.9 \\ \\ 47.2$	60·0 58·2 60·5	$(+2 \cdot 9)$ $-1 \cdot 8$ $+1 \cdot 2$ $$ $-0 \cdot 1$	$76 \cdot 8 \\ 83 \cdot 0 \\ 83 \cdot 8 \\ \vdots \\ 89 \cdot 7$	11, 13 9 9 	$ \begin{array}{r} 44 \cdot 0 \\ 38 \cdot 5 \\ 37 \cdot 8 \\ \vdots \\ 35 \cdot 3 \end{array} $	$\begin{bmatrix} 21\\3\\2\\ \\ \\ \\ \\ \\ \\ \\ \\ \end{bmatrix}$	$ \begin{array}{r} 5 \cdot 67 \\ 5 \cdot 93 \\ 1 \cdot 76 \\ \vdots \\ 2 \cdot 54 \end{array} $	5 13 6 	$(-22 \cdot 18) +3 \cdot 34 -1 \cdot 19 \vdots +0 \cdot 83$	2·83 1·94 0·77	15 1 1 	135·1 248·4
Earnscleugh	,500 ,550 ,550 520 350	$72 \cdot 2$ $67 \cdot 3$ $73 \cdot 1$ $70 \cdot 9$	48·4 45·2 50·4 48·5	$60 \cdot 3$ $56 \cdot 2$ $61 \cdot 8$ $59 \cdot 7$	$ \begin{array}{c c} -1.9 \\ +0.2 \\ \end{array} $	86·5 84·0 89·4 88·0	5 7 5 13	$ \begin{array}{r} 36.6 \\ 32.0 \\ 38.1 \\ 33.0 \end{array} $	3 2 3 3	$ \begin{array}{r} 2 \cdot 34 \\ 2 \cdot 06 \\ 2 \cdot 85 \\ 2 \cdot 14 \\ 1 \cdot 91 \end{array} $	5 6 6 8	$+0.87 \\ +0.87 \\ +0.38$	0·86 0·97 0·90 0·67	1 16 15	226·0 236·4
Mid Dome	,252 ,345 ,448 80	$67 \cdot 1 \\ 63 \cdot 1 \\ 64 \cdot 4 \\ 65 \cdot 3$	$45.5 \\ 44.2 \\ 41.6 \\ 48.8$	56·3 53·6 53·0 57·0	 -0·1 (-0·8)	$82 \cdot 0$ $79 \cdot 1$ $81 \cdot 5$ $80 \cdot 8$	7 8 7 14	$36.0 \\ 34.2 \\ 30.5 \\ 36.8$	20 2 3 3	$ \begin{array}{r} 3 \cdot 70 \\ 3 \cdot 60 \\ 2 \cdot 23 \\ 3 \cdot 33 \end{array} $	9 13 6 13	$\begin{array}{c c} & \cdots & \\ -0.13 & \\ (+0.81) & \end{array}$	$1 \cdot 41$ $1 \cdot 23$ $1 \cdot 10$ $1 \cdot 46$	15 15 15 15	180 - 2
Mussleburgh, Dunedin East Gore Gore Otautau	5 245 240 180	$63 \cdot 4 \\ 64 \cdot 7 \\ 67 \cdot 6 \\ 65 \cdot 1$	$51 \cdot 1$ $45 \cdot 0$ $47 \cdot 1$ $46 \cdot 6$	57·2 54·8 57·4 55·8	$ \begin{vmatrix} (-2 \cdot 0) \\ -3 \cdot 2 \\ -1 \cdot 3 \end{vmatrix} $	$78 \cdot 0$ $84 \cdot 0$ $83 \cdot 0$ $82 \cdot 6$	14 13 6 13	$ \begin{array}{r} 41 \cdot 8 \\ 32 \cdot 0 \\ 32 \cdot 5 \\ 32 \cdot 7 \end{array} $	3 3 3	3.16 2.87 2.58 1.93	15 12 12 7	$ \begin{array}{c c} +0.39 \\ -0.36 \\ \vdots \\ \vdots \end{array} $	$ \begin{array}{r} 1 \cdot 09 \\ 1 \cdot 25 \\ \hline 1 \cdot 12 \\ \hline 1 \cdot 09 \\ \end{array} $	15 15 15	172·(
Pebbly Hills Invercargill	150 32 8	$68 \cdot 3 \\ 65 \cdot 2 \\ 64 \cdot 2$	$46 \cdot 3$ $47 \cdot 8$ $48 \cdot 3$	$57 \cdot 3$ $56 \cdot 5$ $56 \cdot 2$	$egin{array}{c} -0.4 \\ -1.2 \\ \end{array}$	85·0 79·0 79·0 E RE	13 8 8 TURNS	$\begin{vmatrix} 34 \cdot 0 \\ 35 \cdot 0 \\ 34 \cdot 2 \end{vmatrix}$	3 3 3	$egin{array}{c} 2 \cdot 45 \\ 2 \cdot 10 \\ 2 \cdot 20 \\ \end{array}$	12 10 9	$-1.94 \ (-1.94)$	$ \begin{array}{c c} 1 \cdot 15 \\ 1 \cdot 32 \\ 1 \cdot 50 \end{array} $	15 15 15	167.3
Te Aroha, Dec., 1950 Opotiki, Dec., 1950 Pahiatua, Dec., 1950 Manorburn Dam, Dec., 2	46 27 384 448	$77 \cdot 2$ $72 \cdot 1$ $70 \cdot 1$ $64 \cdot 3$	$56 \cdot 8$ $55 \cdot 7$ $52 \cdot 0$ $38 \cdot 4$	$67 \cdot 0$ $63 \cdot 9$ $61 \cdot 0$ $51 \cdot 4$	$ \begin{vmatrix} +3 \cdot 1 \\ $	$87 \cdot 0 \\ 77 \cdot 0 \\ 79 \cdot 0$	22 5 20, 26 21, 22	$\begin{array}{c c} 42 \cdot 0 \\ 44 \cdot 9 \\ 41 \cdot 0 \\ 29 \cdot 0 \end{array}$	11 6 6 13	$egin{array}{c} 2 \cdot 49 \\ 3 \cdot 28 \\ 6 \cdot 71 \\ 0 \cdot 97 \\ \hline \end{array}$	16 8 16 6	$ \begin{array}{c c} -0.92 \\ $	$egin{array}{c} 0 \cdot 60 \\ 2 \cdot 13 \\ 1 \cdot 68 \\ 0 \cdot 49 \\ \end{array}$	$21 \\ 28 \\ 24 \\ 27$	226 · 1

Note.—At stations where departures from normal are in parentheses, the temperature record has been maintained for less than ten years, the rainfall record for less than twenty years, and the normals are partly interpolated

NOTES ON THE WEATHER FOR JANUARY, 1951

General.-Mild, settled weather predominated for the greater

General.—Mild, settled weather predominated for the greater part of January but an extensive cyclonic depression caused a marked deterioration in the last quarter.

Growth of pastures and fodder crops was better than usual. Harvesting operations suffered some interruption towards the end of the month, and the stormy conditions at that time resulted in the loss of some crops of small seeds. In the main, stock was reported to be in good condition, but in parts of the North Island lambs are rather backward.

Rainfall.—Rainfall was below normal west of the Tararuas in

Rainfall.—Rainfall was below normal west of the Tararuas, in Taranaki, the Marlborough Sounds, Westland, and Southland. In Westland it was the driest January since 1928.

The Auckland Province on the whole received about the normal January rainfall, but there was a substantial surplus in eastern districts of both islands, more especially about Gisborne and South Canterbury.

Temperatures.—In Westland mean temperatures were about 2° above normal. On the eastern side of the Southern Alps the departure from normal was negative and amounted to 2° on the coast.

In the North Island, too, the east coast was slightly cooler than normal, but elsewhere temperatures were close to or slightly

above normal.

The second half of the month was decidedly cooler than the first half.

Sunshine.—The duration of sunshine was well below normal Sunshine.—The duration of sunshine was well below normal east of the South Island ranges, and in northern and eastern districts of the North Island. Napier (165-5 hours) and Gisborne (173-6 hours) experienced the lowest January sunshine for many years. Although Napier's sunshine was equivalent to 3 hours a day less than normal, it was still greater than in January 1922 (142-0 hours). It was sunnier than usual in Taranaki, Nelson, and Westland, the southern portion of Westland being particularly well favoured. Weather Sequence.—At the begining of the month an active trough lay across the middle of the South Island. Temperatures dropped sharply as it advanced slowly northwards. The weather cleared gradually from the south and west with the approach of an anticyclone from the South Tasman Sea. After crossing the South

anticyclone from the South Tasman Sea. After crossing the South Island on the 3rd, this anticyclone moved out to the east, but became stationary for several days near the Chatham Islands, and intensified further. From this position it continued to dominate the weather situation over New Zealand until the 9th. During this period the weather was mainly sunny and warm with light north-

easterly breezes. In Northland, however, winds were stronger and light rain fell at times. On the Canterbury and Otago coast morning

Ight rain fell at times. On the Canterbury and Otago coast morning fogs were fairly widespread from the 6th to the 8th.

The passage of a weak trough resulted in a few scattered showers in the south on the 9th. A cold front which reached Southland on the following afternoon proceeded northwards accompanied by a broad band of rain. After becoming stationary over South Auckland on the 12th it slowly dissipated. Elsewhere the weather had cleared rapidly with the arrival of another anticyclone and fine, mild weather predominated generally, until the 15th.

predominated generally until the 15th.

After crossing Southland on the afternoon of the 15th a trough advanced steadily to pass off to the north-east on the night of the 17th, most districts experiencing light or moderate rainfalls during

An anticyclone over the South Tasman was almost stationary for several days and pressures remained low to the south-east of New Zealand. Moderate winds from a southerly quarter persisted with occasional rain in eastern districts south of East Cape. On the 20th the weather was fair to cloudy over the whole

country under the influence of a ridge of high pressure extending from the South Tasman Sea across New Zealand and away to the east. Next day increasing easterly winds and intermittent rain in east. Next day increasing easterly winds and intermittent rain in Northland presaged the approach of a cyclonic depression from the north. During the 22nd rain spread rapidly southwards as far as the northern districts of the South Island and later extended to the remainder of the Island except South Westland. Travelling slowly on a southerly course the centre passed near North Cape on the night of the 22nd, was off Cape Egmont at noon on the 24th, then turned south-easterly and moved more rapidly through Cook Strait off towards the Chatham Islands. Cold southerlies advanced northwards to the Wellington Province and rose to gale force for a time between Banks Peninsula and Cook Strait. During this storm rain in substantial amounts fell over the greater part of the country but there was no appreciable flooding. country but there was no appreciable flooding.

Cold, showery conditions continued for several days, but with

the approach of an anticyclone from the Tasman Sea on the 28th the weather began to clear from the south and west.

A cold front associated with a deep depression far to the south reached Cook Strait on the morning of the 31st. Following its rapid advance up the east coast of the South Island, rain fell for a few hours and temperatures again dropped to the lower fifties. Proceeding farther northwards it gradually weakened, while an anticyclone moved on to the South Island.

(N.Z.M.O. 107.)

M. A. F. BARNETT, Director.