THE NEW ZEALAND GAZETTE

CLIMATOLOGICAL TABLE-continued

Summary of the Records of Temperature, Rainfall, and Sunshine for February 1952-continued

Station.	Height of Station above M.S.L.	Air Temperatures in Degrees (Fahrenheit).								Rainfall in Inches.					
		Means of		Mean		Absolute Maximum and Minimum.			and		No		Maximum Fall,		Bright
		A Max.	B Min.	of A and B.	Difference From Normal.	Maximum.	Date.	Minimum.	Date.	Total Fall.	of Bain Days.	Difference From Normal.	Amount.	Date.	shine.
Akaroa Lincoln The Hermitage Winchmore Haast Ashburton	Ft. 150 36 2,510 626 15 323	°F. 72·5 71·7 66·4 71·9 73·9	$^{\circ}$ F. 55 · 5 51 · 7 47 · 2 50 · 2 51 · 0	°F. 64·0 61·7 56·8 61·0 62·4	$+2\cdot 1 +2\cdot 0 +0\cdot 7 +1\cdot 4 +1\cdot 4$	°F. 86·5 89·0 78·2 87·0 92·2	$23 \\ 23 \\ 6 \\ 8 \\ \\ 8$	°F. 45·0 34·4 35·2 36·5 35·4	$ \begin{array}{c} 16 \\ 14 \\ 3 \\ 16 \\ \\ 16 \end{array} $	In. 0.89 1.09 18.47 0.97 . 1.09		$(-1\cdot58) \\ -0\cdot66 \\ +3\cdot29 \\ -1\cdot31 \\ . \\ -1\cdot60$	In. 0.36 0.54 11.50 0.64 0.64	$27 \\ 27 \\ 1 \\ 27 \\ \\ 27 \\ \\ 27$	Hrs. 170.0 170.5 150.9 157.3
Fairlie Lake Tekapo Timaru Adair	1,004 2,400 56 200	70.5 70.1 71.1 	$46.5 \\ 43.7 \\ 49.4 \\$	58.5 56.9 60.2	$\begin{vmatrix} -0 \cdot 1 \\ -0 \cdot 1 \\ +0 \cdot 0 \end{vmatrix}$		8 21 1 	$ \begin{array}{r} 34 \cdot 0 \\ 30 \cdot 8 \\ 40 \cdot 5 \\ \dots \end{array} $	14, 16 3 17 	$1 \cdot 44 \\ 1 \cdot 02 \\ 1 \cdot 62 \\$	12 5 9	$-1 \cdot 48$ $-0 \cdot 81$ $-0 \cdot 60$ \cdots	$0.45 \\ 0.47 \\ 0.79 \\$	$\begin{array}{c} 27\\1\\27\\\end{array}$	$206 \cdot 4$ 151 \cdot 4
Tara HillsMilford SoundWaimateQueenstown	$1,600 \\ 20 \\ 200 \\ 1,100$	$71 \cdot 6$ $65 \cdot 8$ $69 \cdot 8$ 	$47 \cdot 4$ 51 \cdot 5 49 \cdot 7	59.5 58.6 59.8	(-0.2) +1.4 -0.3	$83 \cdot 4 \\ 72 \cdot 1 \\ 87 \cdot 0 \\$	22 23 1 \cdot	$ \begin{array}{r} 36 \cdot 3 \\ 42 \cdot 0 \\ 41 \cdot 0 \\ $	$ \begin{array}{c} 3, 16 \\ 13 \\ 3 \\ \cdot \cdot \end{array} $	1.65 22.04 1.39		(-0.04) -1.54 -0.93 	$1 \cdot 20 \\ 10 \cdot 55 \\ 0 \cdot 43 \\ \cdots$		$ \begin{array}{c c} 193 \cdot 1 \\ \\ 149 \cdot 4 \\ \\ \end{array} $
Cromwell Ophir Earnscleugh Waipiata Alexandra	$720 \\ 1,000 \\ 500 \\ 1,550 \\ 520$	$\begin{array}{c} 72 \cdot 6 \\ 74 \cdot 8 \\ 74 \cdot 4 \\ 71 \cdot 2 \\ 75 \cdot 3 \end{array}$	$50.8 \\ 46.4 \\ 48.2 \\ 46.4 \\ 50.4$	$\begin{array}{c} 61 \cdot 7 \\ 60 \cdot 6 \\ 61 \cdot 3 \\ 58 \cdot 8 \\ 62 \cdot 8 \end{array}$	$ \begin{array}{c} (+0\cdot1) \\ +0\cdot8 \\ (+0\cdot6) \\ +1\cdot0 \\ +1\cdot4 \end{array} $	$ \begin{array}{r} 84 \cdot 0 \\ 86 \cdot 3 \\ 86 \cdot 2 \\ 83 \cdot 0 \\ 87 \cdot 0 \end{array} $	$ \begin{array}{r} 17 \\ 17 \\ 22 \\ 6, 22 \\ 22 \\ 22 \end{array} $	$\begin{array}{c} 41 \cdot 6 \\ 32 \cdot 2 \\ 36 \cdot 0 \\ 32 \cdot 0 \\ 37 \cdot 1 \end{array}$	$ \begin{array}{c} 16 \\ 3 \\ 29 \\ 16 \\ 15 \end{array} $	$ \begin{array}{c} 1 \cdot 50 \\ 1 \cdot 54 \\ 1 \cdot 40 \\ 2 \cdot 00 \\ 1 \cdot 47 \end{array} $	$ \begin{array}{c} 4 \\ 3 \\ 2 \\ 6 \\ 5 \end{array} $	$ \begin{array}{c} (-0.18) \\ -0.39 \\ (+0.15) \\ +0.00 \\ +0.00 \end{array} $	$ \begin{array}{c c} 1 \cdot 18 \\ 0 \cdot 97 \\ 1 \cdot 16 \\ 0 \cdot 63 \\ 1 \cdot 10 \end{array} $	1 1 24 1	220.5 206.5
Roxburgh Hydro Mid Dome Moa Flat, West Otago Manorburn Dam Taieri Musselburgh, Dunedin	$350 \\ 1,252 \\ 1,345 \\ 2,448 \\ 80 \\ 5$	$ \begin{array}{c} 75 \cdot 4 \\ 70 \cdot 0 \\ 67 \cdot 2 \\ 66 \cdot 5 \\ 69 \cdot 8 \\ 67 \cdot 6 \end{array} $	$\begin{array}{r} 48 \cdot 1 \\ 43 \cdot 7 \\ 45 \cdot 7 \\ 42 \cdot 8 \\ 45 \cdot 9 \\ 51 \cdot 1 \end{array}$	$\begin{array}{c} 61 \cdot 8 \\ 56 \cdot 8 \\ 56 \cdot 4 \\ 54 \cdot 6 \\ 57 \cdot 8 \\ 59 \cdot 4 \end{array}$	$ \begin{array}{c}\\ +1.0\\ (+0.1)\\ (+0.9) \end{array} $	$ \begin{array}{r} 87 \cdot 8 \\ 80 \cdot 0 \\ 77 \cdot 0 \\ 77 \cdot 5 \\ 87 \cdot 8 \\ 85 \cdot 5 \end{array} $	$22 \\ 24 \\ 6 \\ 17 \\ 8 \\ 23$	$35 \cdot 9$ $36 \cdot 0$ $34 \cdot 4$ $31 \cdot 0$ $35 \cdot 2$ $39 \cdot 1$	$15 \\ 15, 26 \\ 15 \\ 29 \\ 15 \\ 26$	$ \begin{array}{c} 1 \cdot 37 \\ 1 \cdot 18 \\ 1 \cdot 53 \\ 1 \cdot 18 \\ 0 \cdot 87 \\ 0 \cdot 81 \end{array} $	4 5 8 6 7 6	$ \begin{vmatrix} -0.36 \\ \\ (-1.42) \\ -0.58 \\ (-1.44) \\ -2.14 \end{vmatrix} $	$ \begin{array}{c} 1 \cdot 11 \\ 0 \cdot 48 \\ 0 \cdot 84 \\ 0 \cdot 80 \\ 0 \cdot 43 \\ 0 \cdot 43 \\ \end{array} $	$egin{array}{c c} 1 \\ 24 \\ 1 \\ 1 \\ 27 \\ 27 \\ 27 \end{array}$	$ \begin{array}{c} \cdot \cdot \\ \cdot \cdot \\ \cdot \cdot \\ 178 \cdot 3 \\ 175 \cdot 4 \end{array} $
East Gore	$245 \\ 240 \\ 180 \\ 150 \\ 32 \\ 8$	$ \begin{array}{c} 70 \cdot 3 \\ 69 \cdot 8 \\ 70 \cdot 4 \\ 67 \cdot 0 \\ 66 \cdot 8 \end{array} $	$\begin{array}{c}\\ 46 \cdot 6\\ 45 \cdot 0\\ 46 \cdot 2\\ 46 \cdot 8\\ 48 \cdot 1\end{array}$	$58 \cdot 4$ $57 \cdot 4$ $58 \cdot 3$ $56 \cdot 9$ $57 \cdot 4$	$\begin{array}{c} \cdot \\ (+0 \cdot 1) \\ (+1 \cdot 0) \\ \cdot \\ -0 \cdot 4 \\ +0 \cdot 2 \end{array}$	$ \begin{array}{r} 82 \cdot 5 \\ 79 \cdot 3 \\ 81 \cdot 5 \\ 77 \cdot 0 \\ 75 \cdot 8 \end{array} $	$22 \\ 3 \\ 1 \\ 1 \\ 1 \\ 1$	$34 \cdot 0$ $33 \cdot 5$ $32 \cdot 5$ $35 \cdot 0$ $38 \cdot 2$	$ \begin{array}{c} 15\\15\\10\\16\\26\end{array} $	$ \begin{array}{c} \cdot \\ 1 \cdot 83 \\ 0 \cdot 90 \\ 2 \cdot 25 \\ 2 \cdot 35 \\ 2 \cdot 18 \end{array} $	85131413	$(-0.98) \\ (-2.11) \\ (-1.23) \\ -1.11 \\ -1.25$	$ \begin{array}{c} \cdot \\ 0 \cdot 93 \\ 0 \cdot 46 \\ 1 \cdot 01 \\ 0 \cdot 59 \\ 0 \cdot 59 \\ \end{array} $	 1 1 1 1	$\begin{vmatrix} 177 \cdot 2 \\ \vdots \\ 175 \cdot 0 \\ \vdots \\$
					LA'	ге ве	TURN	s							
Balmoral, Jan., 1952 Akaroa, Jan., 1952 East Gore, Jan., 1952	$650 \\ 150 \\ 245$	$69 \cdot 4 \\ 72 \cdot 1 \\ 66 \cdot 1$	$47 \cdot 3 \\ 51 \cdot 4 \\ 44 \cdot 9$	$58 \cdot 4 \\ 61 \cdot 8 \\ 55 \cdot 5$	$(-3 \cdot 2) \\ -0 \cdot 2 \\ -2 \cdot 5$	$85 \cdot 5 \\ 83 \cdot 0 \\ 83 \cdot 0$	$\begin{array}{c}15\\26\\14\end{array}$	$36 \cdot 5 \\ 44 \cdot 0 \\ 39 \cdot 0$	$\begin{array}{c} 10 \\ 8 \\ 3 \end{array}$	$1 \cdot 82 \\ 2 \cdot 39 \\ 4 \cdot 39$	$\begin{array}{c}8\\8\\17\end{array}$	$-0.24 \ (+0.07) \ +1.31$	$0.88 \\ 0.73 \\ 1.20$	8 8 28	$228 \cdot 2$

-At stations where departures from normal are in parentheses, the temperature record has been maintained for less than ten NOTE .-Vers, the rainfall record for less than twenty years. Rainfall normals have been revised and now refer to the standard period 1921-1950. Where observations are not available for the whole period, or where the site of the raingauge has been changed, the normals are partly interpolated.

Notes on the Weather for February 1952

General.-After the long spell of cool westerly weather which persisted throughout the early summer, February's weather when contrast, was warm though rather dull. Rainfall varied greatly, ranging from record monthly totals in central Northland to almost negligible amounts in North Canterbury. However, conditions on the whole were favourable.

In spite of flood damage to pastures in Northland, the Dominion butterfat production remained very high. Low rainfall in cropping areas provided good harvesting conditions. Though feed was plentiful and stock generally in good condition, sheep in the North Island would have benefited from more sunshine. Lack of sunshine

Island would have benefited from more sunshine. Lack of sunshine also delayed the tomato crop considerably. *Rainfall*.—Rainfall was very unevenly distributed. Whereas North Canterbury had only about a quarter of the normal rainfall, in parts of Northland it was the wettest month for over forty years. Generally, rainfall was appreciably above normal in the Auckland Province, in Hawke's Bay (except near Napier), North Taranaki, Nelson, Westland, and Western Otago. Eastern districts of the South Island and the Wairarapa had only about half the normal reinful rainfall.

For the twenty-four hours up to 9 a.m. on the 16th rainfalls For the twenty-four hours up to 9 a.m. on the 16th rainfalls exceeding 6 in. were recorded over a wide area in central Northland— a few falls were as high as 10 in. Serious flooding occurred as a result, and this was further aggravated when thunderstorms produced further falls, of the order of 3 in., early on the 19th. Exceptionally severe thunderstorms were also reported from Fiordland and the Lakes District on the 1st, a fall of 7.74 in. being recorded in eight hours at the Homer Tunnel.

Temperatures.—Temperatures were above normal—by only a fraction of a degree Fahrenheit in the south but by more than 3 degrees in the interior of the North Island. Generally the tempera-ture anomaly increased from south to north and from the coast inland.

Sunshine.—Apart from a slight excess in the south, sunshine totals were well below normal. In few places was the deficiency less than the equivalent of an hour a day; in Northland it exceeded two hours a day.

Weather Sequence.—At the beginning of the month a very deep depression was passing in the far south. The associated cold front moved slowly eastwards across the Dominion accompanied by a broad band of heavy rain and scattered thunderstorms. By the time the front reached East Cape on the morning of the 4th, the weather had cleared over the South Island with the arrival of a ridge of high pressure. Skies cleared later the same day as far northwards as Taranaki and Hawke's Bay. In the north, however, unsettled weather continued due to the influence of a complex

unsettled weather continued due to the influence of a complex low-pressure system which was to remain near Northland for a fortnight. The passage of a weak disturbance caused some brief rain in the south on the night of the 6th. With the approach of the northern depression and the advance of a cold front from the south, conditions deteriorated over the North Island during the 8th and some substantial rainfalls were subsequently recorded over the Auckland Province. An anticyclone crossed the South Island during the 9th and 10th. It was followed by a slow-moving trough which for the next few days produced intermittent rain in Westland and a few scattered showers in other South Island, the trough appeared to weaken, but, with the influx of cool air ahead of an intense anti-cyclone approaching the South Island where intense rainfall resulted in widespread flooding by the following day.

in widespread flooding by the following day. North-easterlies and warm, rather humid, conditions prevailed after the passage of the anticyclone across the South Island on the 16th. Rain continued intermittently over the Auckland Province and extended to Taranaki, Nelson, and Westland, and briefly to Wellington (on the 17th). The centre of the northern depression had meanwhile travelled westwards into the North Tasman Sea where it slowly dissipated.

By the 19th the centre of the anticyclone had moved away beyond the Chatham Islands. A shallow trough crossing the South Island from the west caused a brief change to cool southerlies on the 20th. On the same day conditions improved over the Auck-land Province and, apart from isolated showers, fair warm weather predominated over most of the country until the 24th. An active cold front which advanced slowly north-eastwards over the South Island on the 25th was followed by a temporary change to fresh southerlies.

Slowly weakening, the front advanced only as far as Hawke's Bay. With the approach of a vigorous depression, rain developed over the South Island on the 27th. Next morning the centre travelled rapidly across Nelson and Marlborough, while the associated cold front moved eastwards across the North Island. Moderate easterlies and fair weather prevailed on the 29th except for a few passing showers in the south.

(N.Z. M.O. 107)

M. A. F. BARNETT, Director.

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