CLIMATOLOGICAL TABLE—continued Summary of the Records of Temperature, Rainfall, and Sunshine for March 1953-continued

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Station.	Height of Station Above M.S.L.	Air Temperatures in Degrees (Fahrenheit).								Rainfall in Inches.					
		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.
Lincoln The Hermitage Winchmore Haast Ashburton Fairlie Lake Tekapo Timaru Adair Tara Hills Milford Sound Waimate Queenstown Cromwell Ophir Earnscleugh Waipiata Alexandra Roxburgh Hydro Mid Dome Moa Flat, West Otago Manorburn Dam Taieri Musselburgh, Dunedin East Gore Gore Otautau Pebbly Hills Invercargill South Invercargill Airfield	Ft. 36 2,510 526 15 323 1,004 2,250 56 200 1,600 200 1,100 720 1,000 1,550 520 350 1,252 1,345 2,448 80 5 245 240 180 150 8 0	°F. 867.8 66.6 62.4 66.6 62.4 66.5 65.0 68.6 60.4 56.5 67.8 68.0 67.9 66.1 60.3 59.3 59.3 64.2 62.7 64.5 65.0 63.8 63.5 62.4 61.8	°F. 444·1 45·3 46·1 46·9 40·7 45·1 48·9 43·1 47·5 40·9 43·0 41·5 42·0 42·2 38·5 44·6 45·0 44·3 44·3 44·3 45·3 45·3	°F. 656.653.856.054.258.054.156.457.055.857.0	$\begin{array}{c} -0\cdot 4\\ -0\cdot 3\\ (-0\cdot 4)\\ (-2\cdot 7)\\ +0\cdot 2\\ -1\cdot 2\\ \vdots\\ -0\cdot 2\\ +0\cdot 7\\ (-0\cdot 4)\\ -1\cdot 4\\ -0\cdot 5\\ \vdots\\ -1\cdot 3\\ (-1\cdot 2)\\ -1\cdot 8\\ -0\cdot 6\\ \vdots\\ \vdots\\ -1\cdot 4\\ (-0\cdot 4)\\ (-0\cdot 3)\\ -0\cdot 5\\ (-0\cdot 4)\\ (-0\cdot 7)\\ \vdots\\ (-0\cdot 2)\\ (-0\cdot 2)\end{array}$	°F. 86·8 74·0 81·9 67·4 83·0 82·7 80·8 82·3 66·0 83·8 80·2 83·0 76·8 76·8 76·8 76·8 76·6 81·0 76·8 75·0 76·4	11 10, 18 11 31 11 10 10 10 10 10 10 10 10 1	°F. 33.6 31.0 34.0 36.9 30.0 34.4 41.0 31.8 32.8 32.4 37.0 35.0 29.8 36.1 34.0 37.0 37.0 37.0 37.0 37.0 37.0 37.0 37	31 27, 28 14 14 31 16 31 13 6 31 13 18 18 18 18 18 18 18 18 18 18 18 18 18	In. 3.04 15.09 5.15 9.82 5.40 4.04 3.41 5.01 1.86 24.42 •4.32 •4.32 2.69 2.04 2.35 1.94 2.20 3.62 2.49 3.62 2.49 3.63 4.93 4.45 5.73 6.48 4.50	13 11 9 18 8 10 9 10 12 7 15 7 7 9 9 13 13 17 16 16 16 16 19 21	$\begin{array}{c} +0.96\\ -0.60\\ (+2.93)\\ (-1.64)\\ +3.20\\ +1.65\\ +1.85\\ +2.88\\ +2.88\\ +2.85\\ (+0.04)\\ +2.34\\ +2.08\\ &\vdots\\ (+0.83)\\ +0.78\\ +0.75\\ (+0.68)\\ &\vdots\\ +1.16\\ +0.80\\ (+1.22)\\ +1.07\\ +1.82\\ (+1.34)\\ (+2.86)\\ (+0.46)\\ (+0.46)\\ (+0.67)\\ \end{array}$	In. 0.68 5.00 1.50 3.24 1.47 1.49 1.29 1.40 0.85 9.82 1.10 0.35 1.28 1.30 1.40 1.83 1.75 1.84 1.45 1.28 1.38 1.34 0.98	26 25 28 25 28 26 26 27 11 25 28 26 11 11 11 11 11 11 11 11 11 1	Hrs. 177-0 158-1 138-0 167-6 232-7 153-1 206-8 124-4 163-4 183-0 114-8 118-9 121-7 132-2
LATE RETURNS															
Waerenga-o-kuri, Feb.,	1,130	68.1	$52 \cdot 2$	60.2	$(-2\cdot3)$	74.8	3	43.7	20	2.49	12	-1.98	0.84	4	1
Kapiti Island, Feb., 1953 Cromwell, Feb., 1953 Gore, Feb., 1953	44 720 240	$66.0 \\ 74.3 \\ 67.0$	55·7 47·9 45·5	$60.8 \\ 61.1 \\ 56.2$	$ \begin{vmatrix} -1 \cdot 2 \\ (-0 \cdot 5) \\ (-2 \cdot 1) \end{vmatrix} $	75·0 88·9 87·0	11 6 6	51·0 34·6 38·0	21 20 5	2·26 0·59 2·18	5 5 13	$ \begin{array}{c c} -0.68 \\ (-1.09) \\ (-0.63) \end{array} $	$ \begin{vmatrix} 0.90 \\ 0.23 \\ 0.62 \end{vmatrix} $	11 20 18	162.1

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. 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 raingauge has been changed, the normals are partly interpolated.

Notes on the Weather for March 1953

General.—In most districts the weather during March was

General.—In most districts the weather during March was somewhat more settled than in February. In eastern districts of the North Island sunny conditions with low rainfall allowed considerable drying of the ground, which had been soaked in the wet dull weather of the previous four months.

In most districts growth was good and stock were reported to be doing well. In eastern Northland, however, lack of rain was proving detrimental to growth; in this district and in parts of the Waikato, dairying production was falling off. The excessive rainfall in Canterbury was having an adverse effect on wheat crops.

A whirlwind near Waitara in North Taranski, on the 28th

A whirlwind near Waitara in North Taranaki, on the 28th

caused some local damage.

Rainfall.—Rainfalls were above average in all districts of the South Island except Westland. The greatest excess was recorded in Canterbury and North Otago. Over the greater part of these districts more than double the average rainfall was recorded; about three-quarters of the total rainfall fell from the 26th to the 29th.

In the North Island small surpluses were recorded in North Taranaki, and in the Wellington and Lower Wairarapa districts.

The greatest deficiency of rainfall was in the Gisborne-Hawke's Bay area, where less than one-quarter of the average value was recorded. In the Bay of Plenty and eastern Northland rainfalls were between one-quarter and one-half of the

Thunderstorm activity was restricted to the North Island, and was not great. It was most marked on the 28th, when thunderstorms were reported in the Waikato and Bay of Plenty districts.

Temperature.—Temperatures were close to average over the whole country. Positive departures of 1°-2°F. were recorded about Auckland City and about Nelson City. Over Central Otago the temperature was 1°-2°F. below normal.

Central Otago the temperature was 1°-2°F, below normal.

Sunshine.—The pattern of the previous four months was almost completely reversed. Greatest surpluses were recorded in the Gisborne Hawke's Bay area; Gisborne itself recorded more than an hour a day sunshine above average. Westland was less sunny than usual, but the greatest deficits were recorded in Taranaki and in Otago; in both provinces many stations received more than an hour per day less sunshine than usual.

Weather Sequence.-At the beginning of the month an anticyclone extended over the country from the east and south. From the 2nd to the 4th several depressions passed far to the south of the country, causing scattered rain, mainly in western districts, with some moderate falls in Westland and Fiordland. An anticyclone moved on to the country on the 5th near Cook Strait and brought three days of settled weather in most

Strait and brought three days of settled weather in most districts; some scattered rain occurred, however, in Northland, the Gisborne district, and along the Southland coast.

On the 8th, 9th, and 10th shallow depressions passed to the south of the country, and moderate rain resulted in Fiordland and South Westland, with isolated falls in other western districts. A deeper depression passed far to the south late on the 10th, and the associated cold front moved over the country on the 11th and 12th, bringing a period of rain in all districts; there were some considerable falls in the western and southern districts of the South Island and about Cook Strait. In parts of Otago the rain broke a prolonged dry spell.

South-westerly conditions prevailed on the 13th, and gales were reported on the coasts of Otago and Southland. Rain or showers persisted in most districts, but a clearance occurred in Central Otago and in the Nelson Province. For the next four days south-westerly conditions persisted; there was scattered rain still in western and southern districts of the South Island and in Northland, but elsewhere the weather was mainly fair or fine.

or fine

trough of low pressure which moved on to the South Island from the west on the 19th became stationary over the North Island on the 20th. The passage of the trough caused rain in Otago and Southland, and in western districts as far north as Auckland Province. An anticyclone brought settled weather to most districts on the 21st, but a moist north-easterly current caused showery conditions near Auckland City. Extensive sea fog was reported on the 21st over the west coast of the North Island, in Cook Strait, and on the east coast of the South Island.

coast of the North Island, in Cook Strait, and on the east coast of the South Island.

Westerly conditions developed again over the South Island on the 22nd, and moderate falls resulted in Fiordland, with some rain also in Westland and in coastal districts of Otago and Southland. An anticyclone over the eastern Tasman Sea brought fair weather to all districts on the 23rd, but a cold front commenced moving slowly eastward from Tasmania on the 24th, and a series of depressions formed on it. In the strong north-westerly current there was general rain on the west coast of the South Island on the 25th, with some particularly heavy falls in Fiordland. As the front moved slowly over New Zealand shallow depressions continued to form on it, and on the 28th two of the depressions deepened near Cook Strait. The rain area spread slowly northward and eastward, and from the 26th to the 29th all districts received some rain. There was some flooding in Southland, South Westland, Canterbury, and Marlborough.

The depressions moved away to the south-east rather slowly, and on the 30th and 31st there was still scattered rain in eastern districts of the South Island and in western districts of the North Island.

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of the North Island. M. A. F. BARNETT, Director,

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