CLIMATOLOGICAL TABLE—continued Summary of the Records of Temperature, Rainfall, and Sunshine for December 1954-continued

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	Height of Station Above M.S.L.	Air Temperatures in Degrees (Fahrenheit)								Rainfall in Inches					
Station		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
Wigram Akaroa Lincoln Highbank The Hermitage Winchmore Haast Ashburton Fairlie Timaru Adair Tara Hills, Omarama Milford Sound Waimate Naseby Frankton Airfield Queenstown Cromwell Ophir Earnscleugh Waipiata Alexandra Mid Dome Moa Flat, West Otago Manorburn Dam* Roxburgh Hydro Taieri Musselburgh, Dunedin Tapanui East Gore Gore Otautau Pebbly Hills Invercargill South Invercargill Airfield	Ft. 74 150 36 1,102 2,510 525 15 323 1,004 56 200 2,300 1,600 20 2,300 1,114 1,100 720 1,550 1,252 1,345 2,448 350 80 5 550 245 240 180 150 8	°F. 68·8 68·1 71·2 66·9 64·9 67·4 66·1 67·3 67·6 63·5 72·5 71·8 71·8 71·8 71·8 65·8 65·9 66·4 66·4 66·3 66·9 6	°F. 51·6 51·7 48·4 46·9 48·2 51·6 51·6 51·6 51·6 51·2 46·9 50·1 43·0 49·1 51·6 48·0 49·1 51·6 48·0 48·1 45·5 44·5 42·5 42·5 43·6 47·4 47·6 47·3 46·9 46·9	°F. 60·2 59·9 57·6 55·9 57·6 59·6 59·3 57·6 60·4 60·2 60·4 60·2 60·4 57·0 60·3 53·4 57·6 60·2 60·4 57·6 60·2 60·4 57·6 60·6 60·6 57·6 60·6 57·6 56·6 5	(+0·2) -0·4 +1·7 +1·3 (+0·1) (+2·1) +0·2 +0·5 +0·9 (+0·2) (+1·4) +3·5 +1·3 +2·8 (+3·4) +1·9 (+0·8) -0·6 -0·8 +0·5 -0·1 +1·1 +0·5 -0·1 +1·1		6 30 29 28 4, 15 29 14, 15 15 15 15 15 15 15 17 17 13 29 14 13 29 14 15 15 15 15 15 15 15 15 15 15 15 15 15	°F. 44.5 45.0 42.1 37.2 34.0 39.3 40.6 40.0 47.3 42.6 32.1 38.5 34.5 36.3 37.0 33.5 37.4 45.0 34.6 37.8 33.0 37.8		In. 2 · 93 3 · 07 2 · 79 7 · 29 9 · 30 5 · 91 5 · 84 4 · 24 3 · 39 1 · 16 11 · 61 3 · 07 2 · 33 1 · 33 1 · 33 1 · 35 0 · 76 1 · 08 1 · 10 1 · 42 2 · 17 3 · 70 1 · 54 4 · 00 3 · 33 2 · 97 4 · 2 · 45 2 · 35 2 · 41	11 14 15 18 12 16 10 14 12 12 15 9 8 8 4 4 4 10 5 13 18 18 19 10 10 10 10 10 10 10 10 10 10	$ \begin{array}{c} (+0.54) \\ (+0.37) \\ +0.57 \\ \\ -3.62 \\ (+3.11) \\ (-6.71) \\ +3.48 \\ +2.53 \\ +1.58 \\ (+0.56) \\ (-0.84) \\ -11.75 \\ +0.14 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	In. 1·06 1·18 0·92 2·42 3·00 2·20 1·83 2·59 2·07 2·14 1·49 0·50 0·91 0·49 0·56 0·63 0·84 0·59 0·57 1·33 0·58 0·58 0·58 0·62 0·47 0·43	11 11 19 11 29 11 10 10 10 10 10 10 10 10 10 10 10 10	Hrs 186·3 205·3 175·2 141·5 232·8 174·4 157·6 217·8 255·3 163·4 163·5 162·3
							TURN	,							
Oratia, Henderson, Nov- ember, 1954	138	70.7	52.3	61.5	(+3.8)	78.2	10	43.6	2,24	2.02	11	$(-2\cdot 32)$	0.79	25	
Otara, November, 1954 Roxburgh Hydro, Nov- ember, 1954	40 350	69·7 73·6	54·0 48·1	61·8 60·8		78·0 87·6	10 11	43·9 32·7	2 4	1·14 1·04	9	(-0.72)	0·48 0·30	25 17	.:
Gore, November, 1954	240	68.7	46.6	57.6	(+3·1)	84.0	11, 14	29.0	4	2.09	13	(-1.12)	0.40	25	154.9

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 rain-gauge has been changed, the normals are partly interpolated.

NOTES ON THE WEATHER FOR DECEMBER 1954

General.—It was a dull, wet month in most eastern districts, but comparatively dry, warm, and sunny in Westland. The two main periods of general rain were from the 8th to the 13th and from the 20th to the 23rd, and they were welcomed by farmers after the exceptionally dry spring weather. In most parts of the country there was sufficient rain to restore the pastures to good condition, but in some districts, especially Northland and West Otago, farmers were still finding the weather too dry.

On the 1st a south-westerly gale caused some damage in Otago and Southland. Local damage was also done by two whirlwinds, one at Waimate on the 1st, and the other at Hawera on the 17th.

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Rainfall.—Rainfall was more than double the normal value in nearly all eastern districts from Timaru to Cape Campbell and from Dannevirke to East Cape, and also over most of the Waikato - Rotorua - Bay of Plenty area. For the Gisborne-Wairoa area and for parts of North Canterbury it was the wettest December on record, with many totals from 6 to 11 inches.

Rainfall was near to or somewhat above normal over most of the remainder of the country north of the Buller River and also in coastal districts from Waimate to Balclutha. However, on the West Coast in Southland, and in Central and West Otago there was an appreciable deficiency which exceeded 50 per cent about Lake Wanaka.

Wanaka.
Some unusually heavy daily falls for December, varying from 3 to 6 inches, occurred in North and Central Canterbury on the 11th and in the Gisborne-Wairoa area on the 21st. There was an exceptional downpour at Gisborne aerodrome on the 10th when about an inch of rain fell in ten minutes.

Several violent thunderstorms occurred, mainly from the 8th to the 13th and from the 20th to the 23rd. At Wanganui on the 8th twelve window panes were shattered by thunder, and at Cambridge on the 23rd several sheep were killed by lightning. Large hail caused some damage at Levin on the 8th, and at Ettrick, Central Otago. some damage at Levin on the 8th, and at Ettrick, Central Otago, on the 20th.

-Temperatures were more than two degrees warmer Temperatures.than usual over the greater part of Auckland Province, in Nelson and Westland, and in the Lakes District of Otago and Southland. Elsewhere temperatures were close to or slightly above normal.

Sunshine.—Except in Northland, Westland, and Central and West Otago, sunshine was below normal, mainly by about an hour a day. In eastern districts from Wairarapa to Gisborne it was one of the dullest Decembers on record, with a deficiency exceeding fifty hours.

Weather Sequence.—From the 1st to the 4th, with a deep depression far to the east, a strong south-westerly airstream covered the country. Gales caused some damage in Southland and Otago, and strong winds were also reported in many parts of the North Island. There were frequent periods of rain in coastal districts as far north as Dunedin, and showers at times in Westland and in parts of the east Coast of both Islands.

both Islands.

During the next three days a trough of low pressure moved slowly over the country as far north as Waikato, accompanied by a period of rain. With the formation of a depression west of Cook Strait on the 8th, rain became general, and there were frequent and considerable falls in most districts during the next five days as the depression moved slowly north-eastward. Thunderstorms were reported from many parts of the country. However, in western and southern districts of the South Island rain was comparatively light and the weather cleared on the 11th. Most other districts experienced a clearance on the 14th as the depression moved away, but showers still persisted from Wellington to East Cape.

On the 15th, with an anticyclone covering New Zealand, the

on the 15th, with an anticyclone covering New Zealand, the weather was generally fine. However, during the next six days a trough of low pressure moved slowly north-eastward over the country. The rain accompanying the trough was mainly light as far north as the Kaikouras, but was of greater intensity and duration in the north owing to the formation of a shallow depression near Cook Strait on the 19th. There were some considerable falls in Auckland and Hawke's Bay Provinces and also in parts of Wellington and Marlborough. Rain became somewhat lighter as the trough moved off the country on the 22nd and 23rd, and on the next two days there were only a few light showers on the east coast in the southwesterly airstream. westerly airstream.

By the 26th a large anticyclone covered New Zealand, and holiday-makers benefited from the fine weather. However, with the approach of a trough of low pressure over the Tasman Sea on the following day showers developed in Southland, and as the trough moved over the country from the 28th to the 30th it was accompanied by light rain over most of the South Island and also in the south-western part of the Auckland Province. On the last day of the year there were still a few isolated showers in coastal districts, but the weather was mainly fine under the influence of an anticyclone centred over the Tasman Sea.

M. A. F. BARNETT, Director.

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