## THE NEW ZEALAND GAZETTE

## CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for September 1965—continued

Height of Station Station Above M.S.L.			Air Temperatures in Degrees (Fahrenheit)								Rainfall in Inches					
		of Station Above	Means of		Mean of A and B	Differ- ence From Normal	Absolute Maximum and Minimum			Total	No. of	Differ- ence	Maximum Fall		Bright Sun- shine	
		A Max.	B Min.	Maxi- mum			Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date		
Ophir Moa Creek Earnscleugh Alexandra Roxburgh Hydro Moa Flat, West Otago Lake Mahinerangi Tapanui Rankleburn Forest Otautau Gore East Gore Winton Pebbly Hills Invercargill Airport Milton Balclutha Rarotonga Raoul Island Campbell Island Scott Base, Antarctica	··· ··· ··· ··· ··· ··· ··· ··· ···	Ft. 1,000 500 461 350 1,345 1,300 740 835 180 245 150 138 1 60 205 157 49 45	°F. 58.8 56.6 60.9 60.0 54.4  56.6 55.5 56.4 56.5 57.7 55.4 57.8 56.3 75.0 65.1 52.0 46.7	°F. 32·2 31·6 32·7 36·9  36·9  38·4 37·0 38·0 38·0 38·0 38·4 41·5 39·0 36·8 36·8 63·2 54·9 43·1 37·7	$^{\circ}F.$ $45 \cdot 5$ $44 \cdot 1$ $46 \cdot 8$ $48 \cdot 7$ $45 \cdot 6$  $47 \cdot 2$ $47 \cdot 3$ $46 \cdot 6$ $69 \cdot 1$ $60 \cdot 0$ $47 \cdot 6$ $-16 \cdot 8$	$\begin{array}{c} +0.3\\ +1.0\\ +0.3\\ +1.0\\ +0.3\\ +1.1\\ \\ +1.0\\ \\ -0.7\\ +0.4\\ +0.7\\ -0.1\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ $	°F. 64-8 65-0 72-2 72-7 70-3 64-3  64-5 67-0 66-0 64-0  63-6 70-0 62-9 70-0 66-1 80-2 70-0 58-0 49-6 49-1 49-1 49-1 58-0	20 13 13 13 13 17  17 9 9 16 9 15 15 15 15 25 18 17	°F. 21·2 22·3 21·8 27·7 30·0 31·2  27·8 22·0 29·5  22·3 27·0 28·4 25·4 25·4 25·4 25·4 25·4 25·4 25·4 25	5 5 6 2 8  6 5 5 6 6 5 6 6 30 23 28 12	$\begin{array}{c} \text{In.} \\ 0.78 \\ 0.70 \\ 0.62 \\ 0.96 \\ 1.56 \\ \hline \\ 1.82 \\ 2.95 \\ 3.88 \\ 2.51 \\ \hline \\ 2.42 \\ 2.69 \\ 3.00 \\ 1.40 \\ 1.24 \\ 2.99 \\ 5.72 \end{array}$	3 7 6 7 8 13 13 16 13 13 16 13  14 14 14 16 11 9 12 13 16 25	$ \begin{vmatrix} -0.32 \\ -0.20 \\ -0.28 \\ -0.20 \\ -0.44 \\ \\ -0.44 \\ \\ +0.58 \\ +0.01 \\ \\ -0.30 \\ -0.60 \\ \\ +0.49 \\ \\ +0.49 \\ \\ \end{vmatrix} $	$ \begin{array}{c} In.\\ 0.52\\ 0.47\\ 0.19\\ 0.15\\ 0.28\\ 0.33\\ 0.46\\ 0.50\\ 0.85\\ 0.50\\ 0.85\\ 0.50\\ 0.85\\ 0.60\\ 0.28\\ 0.27\\ 0.53\\ 0.84\\ 0.50\\ 1.14\\ \end{array} $	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	134 129  133  119  144 154 140 123 59
	LATE RETURNS															
Woodhill, August 1965 Paeroa, August 1965 Ranana, July 1965 Naseby, August 1965 Waipiata, August 1965 Foxton, August 1965		100 27 1,200 2,000 1,550 	56·5 57·4 50·8 45·7 47·2	$\begin{array}{c} 44 \cdot 9 \\ 42 \cdot 0 \\ 34 \cdot 2 \\ 26 \cdot 7 \\ 28 \cdot 5 \\ \end{array}$	50.7 49.7 42.5 36.2 37.8 	$ \begin{array}{c} -0.5 \\ -0.4 \\ \\ -1.7 \\ -1.9 \\ \\ \end{array} $	$\begin{array}{c} 63 \cdot 8 \\ 65 \cdot 2 \\ 60 \cdot 0 \\ 58 \cdot 0 \\ 57 \cdot 0 \\ \ldots \end{array}$	14 16 24 29 31 	$ \begin{array}{c} 27 \cdot 5 \\ 25 \cdot 0 \\ 25 \cdot 0 \\ 16 \cdot 0 \\ 19 \cdot 0 \\ \dots \end{array} $	8 8 22 4 4 	9.16 13.11 6.89 0.33 0.40 	18 20 18 6 	$\begin{vmatrix} +4 \cdot 46 \\ +8 \cdot 71 \\ -1 \cdot 17 \\ -0 \cdot 60 \\ \cdots \end{vmatrix}$	$ \begin{array}{c} 2 \cdot 10 \\ 4 \cdot 18 \\ 1 \cdot 05 \\ 0 \cdot 17 \\ 0 \cdot 24 \\ \dots \end{array} $	26 25 31 20 21 	  140 114

The "normal" refers to the present site of the instruments. The standard periods for normals are: for temperature 1931-60, for rainfall 1921-50, and for sunshine 1935-60. No normals are available for stations with only short records.

## NOTES ON THE WEATHER FOR SEPTEMBER 1965

General: September was marked by rather more frequent and persistent winds from a westerly quarter than usual. It was also a dry month in most districts, especially after the wet and unpleasant winter. However, by the end of the month conditions were very dry in parts of Marlborough, and in the Auckland Province the

lack of rain was retarding pasture growth. On the 18th a local tornado caused some damage in New Plymouth

*Rainfall*: Rainfall was below average over the greater part of the country. In northern districts of the North Island and most northern and eastern districts of the South Island it was less than half of the normal value. Around Blenheim totals were below a

quarter of an inch and among the lowest on record. Over most of the Gisborne district and parts of northern Hawke's Bay rainfall was 50 per cent above average. In this area nearly all the rain fell between the 4th and the 8th. The largest area of above-normal rainfall was the West Coast together with western Nelson and some areas to the east, including the Southern Lakes district. The other area was about Foveaux Strait; and in this area, as on the West Coast, rainfall was regular throughout the month.

Temperatures: Temperatures were mainly close to average. However, in Canterbury and parts of Otago they were  $1\cdot 2$  degrees above average

Snow fell to low levels in inland Southland on the 2nd and 3rd and also affected the high country elsewhere as far north as Ruapehu.

Sunshine: The North Island south of Auckland, Marlborough, and parts of Nelson and North and inland Canterbury were favoured with 20 hours more sunshine than average. In western and most southern districts of the South Island sunshine was below average by about the same amount.

Weather Sequence: On the 1st an anticyclone covered the country, with settled weather. However, during the next three days a trough of low pressure associated with a small depression crossed the

country. It was accompanied by a change to cold southerlies, with snow to low levels in Southland and Central Otago and rain in most other districts, except for the Auckland Province. An anti-cyclone soon brought settled weather again to most of the country, but from the 5th to the 8th the depression remained active to the north-east, and further rain was reported in Gisborne and Hawke's Poor Bay.

For the remainder of the month westerly weather alternated with brief anticyclonic spells, and eastern districts from Oamaru to Gisborne received little rain.

From the 9th to the 11th an anticyclone was centred over the North Island and the weather was generally fine. However, the weather deteriorated on the West Coast and in Manawatu as a complex depression became almost stationary over the eastern Tasman Sea from the 12th to the 14th. During the next four days the depression moved on to the North Island, losing intensity, followed by a series of rapidly moving westerly troughs. Rain became general, except in eastern districts.

Better weather prevailed once again on the 20th and 21st as an anticyclone passed over Northland. The weather soon deteriorated again on the West Coast with the passage of another trough on the 22nd. During the next two days a depression close to Southland moved eastward, and the associated trough of low pressure was accompanied by more general rain, still, however, missing many eastern districts.

A weak ridge of high pressure brought mainly fair weather on the 25th and 26th. On the following day a vigorous trough of low pressure was accompanied by fairly general rain, though still very light in eastern districts. For the last three days of the month pressures were high to the north and low to the south; and typical westerly conditions prevailed, with rain mainly on the West Coast and in Southland. However, some showers were reported in coastal Otago and western districts of the North Island.

J. F. GABITES, Director.

Amount of

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

New Zealand Government Railways-Schedule of Civil Engineering and Building Contracts of £10,000 or More in Value

## Name of Work

Successful Tenderer Tender Accepted т. 13,300 0 Construction of machine shop amenities, Otahuhu C. L. Kemp Ltd., 48 Endeavour Street, Blockhouse 0 Bay, Auckland Cleaning and painting of Bridge No. 77 E.C.M.T. Messrs Bay Hire Ltd., P.O. Box 2046, Tauranga... 11,398 0 0 . . . . A. T. GANDELL, General Manager.