CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for October 1966—continued

		Air Temperatures in Degrees (Fahrenheit)									Rainfall in Inches					
Station	Height of Station Above	Means of		Mean of A	Differ- ence	Absolute Maximum and Minimum				Total	No. of	Differ- ence	Maximum Fall		Bright Sun- shine	
	M.S.L.	A Max.	B Min.	and B	From Normal	Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date		
Berwick Forest Dunedin Airport Musselburgh, Dunedin		°F. 62·4 61·6 61·9 60·5 59·5 57·2	°F. 41·5 41·1 41·3 44·9 42·4 42·6	°F. 52·0 51·4 51·6 52·7 51·0 49·9	+1·4 +0·4 +0·3 +0·8 +2·6	°F. 78·5 76·9 76·4 75·2 73·0 66·5	25 25 25 25 25 25 16, 31	°F. 31·3 29·7 29·9 36·2 35·4 34·5	11 11 20 11 11 20	In. 2·47 2·16 2·00 2·91 2·68 8·18	12 12 11 12 9 20	$0.0 \\ -0.3 \\ -0.2 \\ +0.4 \\ \cdots$	In. 1·08 0·91 0·90 1·24 1·55 1·90	5 5 5 6 21	Hrs. 175 179 192	
Queenstown Mid Dome Cromwell Ophir Moa Creek Earnscleugh Alexandra Roxburgh Hydro Moa Flat, West Otago Lake Mahinerangi Tapanui Rankleburn Forest	1,080 1,252 720 1,000 1,400 500 461 350 1,345 1,300 740 835	62·3 58·9 65·5 62·9 61·7 65·8 65·3 65·4 58·6 57·4 61·1 59·7 59·5	41·4 40·0 42·3 39·0 34·8 37·6 41·9 41·6 39·0 38·8 41·0 39·7	51·8 49·4 53·9 51·0 48·2 51·7 53·6 53·5 48·8 48·1 51·0 49·7 50·3	$ \begin{vmatrix} +1 \cdot 1 \\ -0 \cdot 3 \\ +1 \cdot 2 \\ +0 \cdot 7 \\ +0 \cdot 2 \\ +0 \cdot 1 \\ +0 \cdot 8 \\ +0 \cdot 5 \\ -0 \cdot 8 \\ +0 \cdot 5 \end{vmatrix} $	72·2 75·6 79·3 78·3 76·5 81·9 80·7 81·5 73·2 75·0 76·5 76·8 75·0	25 25 25 25 25 25 25 25 25 25 25 25 25 2	33·7 29·0 30·0 28·4 25·0 26·0 31·1 31·5 32·0 29·0 31·3 28·6	14 31 14 14 25 14 11 11 11 10	1.00 1.24 0.60 2.36 1.76 0.67 0.68 0.67 0.69 1.99 1.14	7 7 4 6 8 3 4 5 10 13 11	$\begin{array}{c} -2 \cdot 0 \\ -2 \cdot 1 \\ -0 \cdot 8 \\ +0 \cdot 8 \\ +0 \cdot 4 \\ -0 \cdot 6 \\ -0 \cdot 5 \\ -1 \cdot 1 \\ -1 \cdot 8 \\ -1 \cdot 3 \\ -1 \cdot 8 \\ \end{array}$	0·41 0·41 0·35 0·79 1·01 0·43 0·43 0·36 0·25 0·68 0·40 0·68	5 12 8 8 8 5 5 5 12 5 5	196 211 	
Otautau Gore Winton Pebbly Hills Invercargill Airport Milton Balclutha Rarotonga Raoul Island Chatham Islands Campbell Island Scott Base, Antarctica	180 230 150 138 1 60 20 157 126 157 49 45	60·9 60·3 61·4 58·4 61·2 60·1 78·7 66·7 54·0 45·6	41·1 41·7 41·1 42·1 41·5 40·9 40·3 67·9 57·0 44·9 37·5	50·3 51·3 50·7 51·8 50·0 51·0 50·2 73·3 61·8 49·4 41·6 -3·6	$\begin{array}{c} +0.1 \\ -0.1 \\ \vdots \\ +1.1 \\ +0.3 \\ \vdots \\ -0.1 \\ -1.8 \\ -0.8 \\ \vdots \\ \vdots \\ \end{array}$	73·0 78·3 75·4 77·0 71·4 77·8 77·6 82·0 70·8 59·4 50·2 18·3	25 25 25 25 25 25 25 25 20 7 28 17	32·3 29·2 31·0 26·2 29·8 31·6 59·8 52·0 35·3	11, 20 20 11 20 20 11 11 27 15 21 13, 20	2·19 0·84 1·17 1·50 1·65 1·68 1·89 3·12 7·99 1·94 2·86	11 10 10 13 16 16 15 7 21 13 26	$ \begin{array}{c} -1 \cdot 1 \\ -1 \cdot 9 \\ \\ -1 \cdot 6 \\ -1 \cdot 8 \\ -0 \cdot 6 \\ \\ -2 \cdot 0 \\ +4 \cdot 5 \\ 0 \cdot 0 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	0·71 0·19 0·25 0·33 0·36 0·65 1·19 4·02 0·94 0·44	5 11 12 5 22 5 5 25 25 29 14	168 178 173 159 171 200 172 140 59	

LATE RETURNS

Whatawhata, Sep 1966 Foxton, Sep 1966	::	340	59.5	43.8	51.6	-0·2 ··	64.3	27	31 · 4	 3.69	14	1.30	1.9	-1·3 	144 128
Errata Te Kauwhata, Sep 1966	5	105	60.5	45 • 4	53.0	-0.3				 					

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.

*Sunshine recorder is not located at the station but is in the near vicinity.

Notes on the Weather for October 1966

General: Barometers were high over New Zealand during October, and it was marked by a comparative absence of winds from a westerly quarter. The month was sunny and dry. Many farmers found the weather rather too dry, especially in dairying districts. However, in Gisborne and Hawke's Bay moisture was mainly considered to be adequate; and on the Canterbury Plains sufficient rain was received to break the dry spell which had commenced in September.

menced in September.

A small local tornado caused some damage in Remuera, Auckland on the 8th.

Rainfall: Over most of the country rainfall was about half the average value. However, in the Gisborne district, on the Canterbury Plains, and on the North Otago coast it was mainly somewhat above average.

Daily falls of as much as 4 in. were recorded on the 8th on the East Coast during the passage of a depression over this district. Western areas of the North Island reported some thunderstorms on 10-12 October; and some were also reported in various parts of the country, especially Waikato, on the 30th and 31st.

Temperatures: Temperatures were mainly close to average. However, they were 1-2 degrees below average in eastern districts of the North Island from Wairarapa to Bay of Plenty, and also in Auckland and parts of Northland; and the same amount above average in western districts of the South Island, extending also to the Canterbury and Otago high country and lakes.

Sunshine: Sunshine was above average by 20–70 hours, except in Northland, Southland, and most of Otago, where it was close to average. It was the sunniest October in Auckland in 58 years of observation, with a total of 240 hours. Motueka recorded 291 hours; Blenheim, 279 hours; and Nelson Airport, 276 hours.

Weather Sequence: For the first four days of the month conditions remained somewhat similar to those experienced in the last six days of September, with an anticyclone centred to the east, and settled weather over most of the country. Pressures were low to the north, and the main exceptions at first were the East Coast and parts of Northland and Auckland. Later, as a depression approached over the Tasman Sea, the weather in these areas improved, but some rain was reported in Southland and on the West Coast, extending eventually to Nelson and the Marlborough Sounds.

eventually to Nelson and the Marlborough Sounds.

The period from the 5th to the 9th was the wettest during the whole month and it was the only period of generally unsettled weather. The depression over the Tasman Sea remained stationary

west of New Zealand, while another centre developed east of the South Island. By the 6th only parts of Hawke's Bay remained dry. However, as the depression to the east moved away on the 7th and the stationary centre lost intensity, there was a temporary improvement, with only scattered light rain. Another depression next developed to the north and moved down the east coast of the North Island, with some heavy rain in the Bay of Plenty, Gisborne, and Hawke's Bay on the 8th and 9th. Rain was again fairly general, except in Southland.

The 10th to the 13th was a period during which the weather was unsettled at times in some areas, with mainly light rain or showers. The depression over the Tasman Sea continued to lose intensity and finally disappeared, while the other centre had reached Chatham Islands by the 10th. On this day rain affected mainly northern districts of both Islands, with some thunderstorms. During the next two days, a trough still persisted to the east of Northland and a cold front crossed the country. Many districts received some light rain. By the 13th pressures were rising with the advance of an anticyclone over the Tasman Sea, but south-westerlies brought some showers to North Canterbury, Marlborough, and southern districts of the North Island.

From the 14th to the 17th an anticyclone was crossing the North Island, with mainly fine weather. However, parts of Fiordland recorded rain on two or three days.

During the next two days a weak trough brought rain to the West Coast, Wellington, Manawatu, and Waikato. On the 20th a weak ridge was associated with better weather, but showers were reported on the Southland and Otago coast. The next two days were marked by the passage of a depression to the south-west of the South Island, while the associated trough of low pressure brought considerable rain to the West Coast and light falls also to some North Island districts, especially in the west. Scattered showers persisted in the south-westerlies on the 23rd.

From the 24th to the 26th an anticyclone crossed the country, with mainly fine weather.

For the last five days of the month a weak trough moved slowly north-eastward over New Zealand. It was preceded by rain on the West Coast, and also accompanied by a belt of light rain in some areas. A few thunderstorms were reported in Hawke's Bay on the 30th, and in Waikato on the 31st.

J. F. GABITES, Director.