## Government Meteorological Observatory.

ETEOROLOGICAL Observations at Kelburn, Wellington, for the Month of February, 1935. Observations taken at Altitude of Observatory, 415 ft.

			, at	Temperature (° F.) from Observations at 9 a.m.						Wind.			(100	Hours	at	
	Pressure in Inches, at Gravity.			Inches id Stan	In Screen.					Grass.			Anemo- meter.	Points: Inch).	1 . 1	(Symbols)
				e in evel an lty.	At 9 a.m. *				Mini- mum.	m on 6	g		s. 24	12 1	Sunshine: Tenths.	
					Dry.	Wet.	Humid- ity.	Dry.	Dry.	Minimum on	Direction.	Force.	Run in Hours.	Rainfall, Points	Bright and T	Weather 9 a.m.
1				30.042	72.3	65.4	68	76.7	62.0	57.2	NNE	2	139		3.9	c
2			• •	30.151	$72 \cdot 3$ $77 \cdot 6$	$67.4 \\ 67.0$	76 55	$81.7 \\ 81.5$	$63 \cdot 3 \\ 62 \cdot 4$	$61 \cdot 2 \\ 56 \cdot 4$	SE NNW	$\frac{2}{2}$	71 73		$egin{array}{c c} 10 \cdot 9 \ 12 \cdot 4 \end{array}$	b
3	• •	• •	• •	$30.143 \\ 30.172$	68.0	64.2	80	$76 \cdot 4$	63.9	58.0	SE	$\frac{2}{2}$	161		$\frac{12.4}{7.3}$	b o
4 5	• •	• •	• •	30.051	73.9	67.5	71	82.3	$64 \cdot 3$	$61 \cdot 2$	NW	2	99	::	12.0	bc
6		• • •	• • •	30.025	72.8	68.0	77	82.6	65.0	63.0	NW	2	182	Trace	8.2	be
7	• • •			30.185	$64 \cdot 6$	$62 \cdot 7$	90	$70 \cdot 4$	60.0	58.2	SSE	4	226	31	1.9	0
8				30.070	$61 \cdot 3$	$61 \cdot 1$	99	$69 \cdot 8$	58.7	59.0	SSE	3	357	Trace	0.2	og
9				30.043	$69 \cdot 0$	66.0	85	$80 \cdot 1$	$60 \cdot 2$	57.3	E	1	53		7.5	$\mathbf{b}$
0				30.097	$74 \cdot 7$	69.0	74	$80 \cdot 4$	63.0	$59 \cdot 2$	NNW	2	45	1	11.3	o
1				30.160	$63 \cdot 6$	$63 \cdot 4$	99	$71 \cdot 0$	$62 \cdot 3$	$57 \cdot 9$	S	2	92	7	1.7	$\mathbf{om}$
2				30.153	$64 \cdot 2$	63.8	98	71.9	61.5	61.9	S	4	229		3.6	odf
3			• •	30.063	71.5	65.4	71	$78 \cdot 2$	62.0	61.9	SSE	2	232		9.7	be
1	• •		• •	29.916	74.3	66.0	62 90	78.5	61.3	55.5	NW SSE	$\frac{2}{2}$	86	Trace	4.9	be
,	• •	• •	• •	$29.919 \\ 30.117$	$61 \cdot 4 \\ 55 \cdot 7$	59·7 50·6	68	$63 \cdot 8 \\ 63 \cdot 4$	$59.8 \\ 52.3$	$59 \cdot 1 \\ 50 \cdot 5$	SSE	4	$\frac{101}{245}$	7	$\begin{array}{c c} 0\cdot7 \\ 3\cdot7 \end{array}$	og
,	••	• •	• •	$30.117 \\ 30.178$	$62 \cdot 7$	56.2	65	70.3	54.9	$52 \cdot 2$	SSE	5	$\begin{array}{c} 249 \\ 253 \end{array}$		12.6	ou b
7	• •	• •	• •	30.178	69.5	59.8	54	76.6	51.1	42.4	NNE	1	$\begin{array}{c} 255 \\ 215 \end{array}$		12.0 $12.3$	b b
3	• •	• •	• •	$30.153 \\ 30.054$	69.3	64.4	76	75.9	$62 \cdot 3$	59.7	NW	4	$\begin{array}{c} 213 \\ 216 \end{array}$		8.1	0
9	• •	• •	• •	29.831	$72 \cdot 0$	64.7	66	$72 \cdot 9$	$64 \cdot 2$	63.0	NW	6	376	iiı	0.9	oq
1		• •	• • •	29.953	68.3	67.0	93	69.3	65.3	$65 \cdot 1$	NNW	3	363	30	0.0	og
2		• •		29.903	65.9	65.4	97	71.0	$64 \cdot 2$	$64 \cdot 2$	NW	4	241	60	2.8	od
3		• • •	• • •	30.077	$52 \cdot 9$	$52 \cdot \hat{0}$	94	$61 \cdot 7$	$52 \cdot 0$	$51 \cdot 3$	S	2	280	5	5.7	or
4				29.909	$60 \cdot 6$	55.8	72	$66 \cdot 1$	50.4	$45 \cdot 0$	NW	3	124	88	9.1	c
5				$29 \cdot 937$	$54 \cdot 5$	50.3	73	$58 \cdot 7$	48.6	$47 \cdot 2$	SSE	5	329	Trace	6.1	c
6				29.939	$56 \cdot 1$	$51 \cdot 2$	70	$60 \cdot 4$	52.0	50.0	SE	4	362	Trace	0.6	orp
7				$29 \cdot 988$	$58 \cdot 7$	$52 \cdot 8$	65	$64 \cdot 4$	$52 \cdot 1$	49.1	SSE	3	231		6.9	o
8		• •	• •	30.328	63.0	55.5	59	$72 \cdot 3$	$54 \cdot 2$	51.1	E	2	140		11.9	b
	Means, &c.			30.056	66 · 1	61.5	76.7	72.4	59.0	56.4		2.9	197	340	176.9	•••

Mean earth temperature at 1 ft., 69.2°; and at 3 ft., 67.5°. Number of rain days, 9.

DIRECTION OF WIND. Gale (force Forces w. N.W. 8 or more). Calm. to  $2\frac{1}{2}$ 1 1 2  $8\frac{1}{2}$ 

Note.—Another remarkably warm summer month. Approximate mean temperature was 4° F. above normal. extreme maximum temperature was 82.6°. Total bright sunshine, 176.9 hours, 46 per cent. of the possible. Precipitation was 27 per cent. above the average. Fogs occurred on three occasions, that on the 9th being unusually thick and persistent and delaying shipping considerably. A thunderstorm, accompanied by heavy rain and some hail, was experienced on the night of the 24th to 25th. Mean dew-point at 9 a.m., 58.7°; mean vapour pressure, 0.493 in.

## NOTES ON THE WEATHER FOR FEBRUARY, 1935.

General.—February saw a continuance of the abnormally warm weather which had been experienced during the preceding three months but also the break of the drought which had accompanied it in most districts. The beginning of the month was very dry, but after the first week humid weather prevailed. Rain became more frequent and widespread and drought conditions were gradually dissipated. Northern districts were the first to be relieved, but the rain gradually extended southwards and culminated in the heavy and general rains which fell between the 19th and the 24th. Further rain is still needed in North Canterbury and especially on the Wairau Plains in Marlborough. In most districts the grass is coming away well again and in the North Island there has been luxuriant growth. Stock are in good condition and the milk yield is recovering somewhat. The rain was too late to give a good wheat yield or to save some of the fodder crops. All crops and fruits are maturing early.

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\*\*Rainfall\*\*—There was a large excess of rainfall over the whole of the North Island, many places having more than double the average fall. In the South Island, most of Nelson and Westland, the Alps, and the eastern foothills had more than the average, but elsewhere there was still a deficit. This was large in parts of Marlborough and southern Otago and Southland.

\*\*Temperatures\*\*—Temperatures were much above normal, the departures ranging approximately between 2.5° and 5° F., those on the west coast being the greatest. There were continuously high temperatures until the 23rd, when a cold spell set in and lasted till the 27th. The four months from November to February have been by far the hottest in the history of the Dominion, and this is true of all parts. Other occasions when the same months were very warm were the 1894–95, 1909–10, 1916–17, and 1923–24 seasons. On the present occasion, however, the average excess above normal is almost double the next hottest. Very few places have, however, experienced their hottest individual temperature. Auckland is one of the few that has.

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Sunshine.—Sunshine was considerably below normal in most eastern districts but above it in the west. Hokitika had the remarkable record of 270·2, New Plymouth 247·9, and Alexandra 237·2 hours.

Storm Systems.—From the Meteorologist's point of view the breaking of the drought was a rather tame affair. As regards pressure and wind there was no storm of note during the month. There is no doubt, however, that in the continued hot weather great quantities of moisture had been taken up into the atmosphere and it required only a slight disturbance to cause heavy precipitation. In the early part of the month the unstable conditions were shown by the frequency of thunderstorms and heavy local downpours. These continued until the last week, but in the later stages were associated with more general rains. Severe local flooding resulted in a number of places. Several small tornadoes and waterspouts were recorded. recorded.

Some heavy rains occurred in North Auckland at the end of the first week of the month in association with several shallow depressions which were unproductive over most of the remainder of the Dominion.