## THE NEW ZEALAND GAZETTE

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for January 1976—continued LATE RETURNS AND CORRECTIONS-continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Celsius)								Rainfall (in millimetres)					• 12
		Means of		Mean of A	Differ- ence	Absolute Maximum and Minimum				Total	No. of	Differ- ence	Maximum Fall		Bright Sun- shine
		A Max.	B Min.	and B	From Normal	Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From	Amount	Date	
	Metres	°C	°C	°C	°C	°C		°C					-		Hrs
Franz Josef, January 1976	122	18.7	10.2	14.5	-0.3	25.0	12	4.4	31	558 mm	18	mm +101	mm 129	0	
Haast, January 1976	4	17.4	9.5	13.5	-0.9	21.2	12	4.0	24	204	15	-93	38	28	197
Craigieburn Forest, Jan- uary 1976	914	18.4	7.3	12.9	-0.2	28.2	5	0.8	30	173	17	+71	37	26	
Lake Pukaki No. 2, Jan- uary 1976	556	22.1	9.5	15.8	+1.0	31.9	5	2.6	31	37	12		13	27	
Temuka, January 1976	24	19.3	10.0	14.7	-0.9	27.6	9	4.0	1	50	13	-11	19	13	
Scott Base, Antarctica, January 1976	16	-1.5	-8.0	-4.8	+0.3	3.2	9	-14.3	24		· • • •	••		••	

The "normal" refers to the present site of the instruments. Standard period for normals is 1941-70. No normals are available for stations with only short records.

\*Indicates that the sunshine recorder is not located at the station but is in the near vicinity. A rain day is a day with rainfall equal to or greater than 0.1 mm. Where the extremes of temperature and rainfall have occurred more than once during the month, the date of the first occurrence is given.

## NOTES ON THE WEATHER FOR FEBRUARY 1976

General-Over most of the country this was the coldest February for at least 39 years, with three spells of particularly wintry weather.

Pressures were higher than usual to the south, and there was an unusually high frequency of south-easterly winds. The month was also rather sunny, and very dry in some areas. In Northland and Southland the farmers found conditions too dry, affecting crops and stock. Elsewhere cold temperatures retarded growth, and some vegetables were not ripening.

Rainfall-Rainfall showed unusually wide variations, from negligible amounts around Queenstown to four times the normal value around Napier and Hastings. It was below normal over most of the South Island and the greater part of the North Island. It was less than a quarter of the normal in several areas, including the Southern Lakes District, parts of Marlborough and Nelson, and Northland south of the Bay of Islands.

Rainfall was above normal over nearly all areas east of the ranges from Ashburton to the Kaikoura coast and from Cape Palliser to Wairoa. It was also above normal in the central North Island. On the 6th, hydro-electric stations on the Waikato from Arapuni to Taupo received 130 to 155 mm.

Temperatures-Temperatures were below normal over the whole country, with departures of  $1\frac{1}{2}$  to  $3\frac{1}{2}$ °C. Highest departures were recorded in an area extending from Wanganui and northern Manawatu to southern Hawke's Bay and northern Wairarapa. To find a colder February it is necessary in most places to go

back to 1937. In quite a few places, however, it was the coldest February since 1931; and in Wellington it was the coldest since 1906.

The most wintry spells were on the 7th and 8th, the 15th, and the 26th and 27th. The morning of the 27th was unusually cold, and New Plymouth aerodrome recorded its first February ground frost in 40 years of observation.

Sunshine—Northland, Auckland, and Waikato were favoured with 50 hours more sun than normal, and for some stations in these areas this was the sunniest February in 30-40 years of observation. Sunshine was also somewhat above normal in King Country and North Taranaki; and in the South Island apart from Nelson, most of Marlborough, Dunedin and South Otago.

Weather Sequence-At the beginning of February a depression was centred near the Chatham Islands while an anticyclone cov-ered the Tasman Sea. Cold southerlies prevailed with rain east of the ranges in the North Island. By the following day the anticyclone lay across the North Island while a trough of low pressure was approaching the South Island from the west, causing some rain on the West Coast. The trough became very weak as it crossed New Zealand during the 3rd and 4th, and soon an anticyclone covered New Zealand and much of the surrounding area. On these days only isolated showers were reported, mainly in western districts and on the Southland coast. On the following day a depression to D

the north was approaching Northland, causing rain there; while another trough of low pressure brought some rain to Fiordland and Southland

The period from the 6th to the 10th was by far the wettest in the month, especially over a considerable area of the North Island, besides parts of Canterbury and Marlborough. During the 6th and 7th the depression near Northland moved southeastward, associated with a trough aligned from northwest to south-east, while an anticyclone over Tasmania moved south-eastward towards Camp-bell Island. Rain affected most districts, with some very heavy falls in the Bay of Plenty and Taupo; also in eastern districts from Gisborne to Canterbury. Flooding was reported in the Rangi-taiki River. Very cold southerlies brought fresh snow on the South Island ranges and gales were reported on the West Coast, about Cook Strait, and in Manawatu. By the 8th the depression had split into two centres, west, and east of the North Island, while an anticyclone was centred near Campbell Island. Rain continued in many districts with some heavy falls in Taranaki, causing flooding around Opunake. During the next two days these two centres covered most of the country while the anticyclone to the south moved eastward. Rain was still reported over considerable areas of both Islands.

By the 11th the anticyclone had moved on to Northland, while pressures were low to the south of the country. Showers were reported in some western districts. However, on the following day a weak trough brought some rain to parts of Otago and Canterbury. From the 13th to the 17th pressures were low to the northeast and east of the North Island, while an anticyclone over Tasmania moved south-eastward past Campbell Island. Temperatures be-came unseasonably cold once again and southerlies brought rain to eastern districts, mainly in the North Island, but also in Marlborough and parts of Canterbury on the 13th and 14th.

From the 18th to the 20th pressures remained low to the south of the country and high over the Tasman Sea and the North Island, the country and high over the Tasman Sea and the North Island, and a weak trough of low pressure crossed the South Island. Considerable rain was reported on the West Coast, especially on the 19th, and some showers were also reported in Southland, Otago, Canterbury, and some western districts of the North Island. Warmer temperatures were also reported temporarily, especially on the 19th in eastern districts of the South Island. From the 21st to the 24th an anticyclone moved eastward across

New Zealand while depressions passed well to the south. The weather was mainly fine but cool. However, isolated showers were reported at times, especially on the West Coast.

During the 25th and 26th a trough of low pressure crossed New Zealand and a small depression formed on it to the east, while an anticyclone was centred to the southwest. Rain affected most of the South Island and parts of the North Island, while wintry temperatures were once more reported. During the last three days of the month an anticyclone moved across the country and the weather was mainly fine. Temperatures became warmer, especially in the South Island.

J. F. DE LISLE, Director. (N.Z. Met. S. Pub. 107)