

NOTES ON WEATHER IN OTHER PARTS OF THE WORLD.

*Atlantic Ocean.*—On December 31, the International Mercantile Marine Co. announced a change in the trans-Atlantic steamship routes on account of ice recently reported in low latitudes. The alteration, which ordinarily takes place in February, was to become effective immediately.<sup>1</sup>

*Iceland.*—The mild winter has caused a failure of the usual local supply of ice needed for preserving herring. \* \* \* —*The Pathfinder*, Jan. 29, 1921.

*British Isles.*—In all parts of the British Isles the abnormally mild weather which set in just before Christmas was continued nearly throughout the whole of January.

The general rainfall for the countries expressed as a percentage of the average were England and Wales, 146; Scotland, 168; Ireland, 119. \* \* \*

In London (Camden Square) the mean temperature was 46° F., or 7.3° above the average. Only two days (15th and 16th) had a mean temperature below the January average, and five days had a mean above 50° F. Since 1858 only one December, no Januaries, no Februaries, and five Marches have had a higher mean temperature.<sup>1</sup>

*Western Europe.*—\* \* \* Over a large part of western Europe mild, stormy, and unsettled weather with southwesterly winds, alternated with briefer spells of the finer, colder weather occurring in the rear of the depressions and their secondaries.<sup>1</sup>

*Northern Europe.*—In northern Europe the weather was, for the most part, cold, and severe frosts were

experienced at some of the stations in Norway and Sweden.<sup>1</sup>

*Italy.*—In Italy and the central part of the Mediterranean fair weather prevailed, except in the middle of the month, when a depression in that region caused an unsettled period.<sup>1</sup>

*India.*—January 13.—Famine is officially declared to exist in one of the districts of India, while there is a food scarcity in many other districts as the result of lack of winter rains for the crops. \* \* \* —*Washington Star*, January 13, 1921.

During the week ending January 22, \* \* \* light to heavy rain was general in the northeastern and central parts of the country and parts of Madras. While this fall was of considerable benefit more rain is needed in the majority of the provinces.<sup>1</sup>

*Hawaii.*—Honolulu, January 17.—Storms which struck the Hawaiian Islands Saturday and yesterday (Jan. 15-16) expended greatest violence on the island of Kauai, according to advices received here to-night. \* \* \*

One district of Honolulu County reported 20 inches of rain fell Saturday night and Sunday. \* \* \*

The Oahu railroad services were disorganized by washouts. The highway system was blocked by many slides and washouts.—*Washington Star*, January 18, 1921.

*Australia.*—At the beginning of the month heavy general rain occurred in Victoria and fairly heavy falls in the Riverina district in New South Wales. Isolated rainfalls were experienced in northern New South Wales and in South Queensland. Beneficial rain fell throughout New Zealand during the month.<sup>1</sup>

<sup>1</sup> *The Meteorological Magazine*, February, 1921, pp. 23 and 28.

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DETAILS OF THE WEATHER OF THE UNITED STATES.

CYCLONES AND ANTICYCLONES.

By W. P. DAY, Observer.

The majority of the LOWS passed along the northern border of the United States, making their first appearance over the North Pacific or Alberta with a few secondary developments over the southern plateau.

The number of HIGHS was slightly above the normal and they generally originated over the Pacific Ocean. However, the great HIGH of January 16-21 was of the Alberta type.

The table below gives the number of HIGHS and LOWS by types:

Lows.	Alber- ta.	North Pa- cific.	South Pa- cific.	North- ern Rocky Moun- tain.	Colo- rado.	Texas.	East Gulf.	South At- lantic.	Cent- ral.	Total.
January, 1921.....	5.0	4.0	1.0	.....	3.0	.....	1.0	.....	.....	14.0
Average number, 1892-1912.....	4.7	2.5	0.9	0.4	1.4	1.5	0.4	0.4	0.5	12.7

  

Higs.	North Pacific.	South Pacific.	Alber- ta.	Plateau and Rocky Moun- tain region.	Hudson Bay.	Total.
January, 1921.....	2.0	4.0	3.0	3.0	1.0	13.0
Average number, 1892-1912.....	0.8	0.6	5.5	1.7	0.4	9.0

THE WEATHER ELEMENTS.

By P. C. DAY, Climatologist and Chief of Division.

[Weather Bureau, Washington, Mar. 2, 1921.]

PRESSURE AND WINDS.

The distribution of atmospheric pressure during the month was materially different from that usual to mid-winter, and illustrates how profoundly small variations may alter the normal courses of cyclones and anticyclones over particular regions. Continued low pressure in the far Northwest and generally over the western Canadian Provinces, was unfavorable for the southward movement of anticyclones into the western United States, and pressure higher than normal over the Central and South-eastern States resisted the usual southeastward trend of storms entering the country from the North Pacific regions. Although the month was unusually stormy over the far Northwest, few of the low-pressure areas crossed the mountains with material strength, and storms of wide extent or of considerable severity were notably absent over the districts from the Rocky Mountains eastward.

The high-pressure areas developed mainly in the plateau regions and drifted thence eastward or southeastward and thus maintained pressure above normal in all central and southern districts. The principal exception to this was during the latter part of the second decade, when a high area of wide extent entered the Missouri Valley from the Canadian Northwest and slowly moved