

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS

Vol. 64 No. 1

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

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JANUARY, 1947.—Unsettled; large temperature variations; snow and intense frost late in month.

The month was noteworthy for the frequency of gales from the 1st to the 17th, a very mild spell at the beginning of the 3rd week, followed by a severe wintry spell when some very low temperatures were recorded.

Apart from the 4th to the 7th, when eastern districts were affected by the westward extension of an anticyclone over north-west Russia and experienced frost and snow, conditions over the British Isles were dominated by troughs of low pressure, associated with deep depressions, moving northwards over the Atlantic. Fresh or strong winds between south-east and south-west prevailed and gales were frequent, particularly in the north and west of the country. The weather was very unsettled, and, except between the 4th and 7th, mild. It was very mild everywhere from the 14th to the 16th, when a large warm sector, associated with a deep, occluded depression in the Icelandic region, covered most of the country.

On the 17th, an anticyclone to the south-west of the British Isles developed, drifted slowly east and then north. From the 20th until the end of the month pressure remained highest to the north and north-east and there was a gradual change, first felt in east and south-east England, and later over the whole country, to unsettled weather with frost and snow and easterly winds. Continuous frost set in over south-east England on the 23rd, over Wales and western England on the 28th, and over Scotland on the 29th. Depressions and their associated troughs to the south of the British Isles from the 25th onwards brought snow at first to south-east and east England, and later everywhere.

Pressure and Wind.—Mean pressure for the month exceeded the average in the north and was below it in the south and south-west. The departure from the mean at 9 h. varied from +7.6 mb. at Lerwick to -5.7 mb. at Plymouth (Mount Wise). South-westerly winds were prevalent between the 1st and 3rd and from the 8th to 17th, south-easterly winds from the 4th to the 7th, and easterly winds from the 20th to the 31st. Among the highest speeds recorded in gusts were 74 m.p.h. at Lerwick on the 3rd, 79 m.p.h. at Pendennis Castle, and 68 m.p.h. at Boscombe Down on the 13th, and 74 m.p.h. at Bell Rock on the 15th.

Temperature.—Mean temperature for the month was below the average everywhere, the deviation from the monthly average for the districts ranging from -1.5°F. in east Scotland to -4.5°F. in east England. Temperature was not always below the average. The mildest week was that beginning the 12th when the departure from the weekly average was +4.7°F. over England and Wales, and +1.7°F. over Scotland. At many places in the British Isles, the maximum reached or exceeded 50°F. between the 14th and 17th, while the minimum did not fall below 50°F. at a number of places on the nights of the 15th and 16th. The coldest week was that beginning on the 26th when the departure from the weekly average was -11.6°F. in England and Wales, and -6.5°F. in Scotland. Day maxima at or below 32°F. appeared on the 25th in east and

south-east England. Thereafter, continuous frost gradually became more intense and the area covered by it more extensive so that by the end of the month there was continuous frost almost everywhere in the British Isles. On the 29th and 30th the cold was most severe. Maxima below 30°F. were common as were minima below 10°F. On the 29th the maximum was 21°F. at Little Rissington, 29°F. at Newquay, and 28°F. at Scilly.

The extremes for the month were:—(England and Wales) 57°F. at many places inland on the 16th, -5°F. at Writtle on the 30th; (Scotland) 56°F. at Prestwick (Airfield) on the 15th, 8°F. at Kelso (Floors) on the 31st; (Northern Ireland) 54°F. at a number of places on the 14th and 15th, 18°F. at Aldergrove on the 30th.

Precipitation.—The general precipitation, expressed as a percentage of the average, for the period 1881-1915 was 113 over England and Wales, 115 over Scotland, and 103 over Northern Ireland. Over England and Wales this was the twelfth consecutive January with more than the average precipitation. Rainfall over Great Britain exceeded the average in the south and most of the south-west and Wales, in a wide belt from the Wash across Lincolnshire and Yorkshire to the English Lake District, and over Scotland south of a line roughly from Banff to Glasgow and to the south of Skye. More than 150 per cent. of the average occurred in south Essex, east Devon, over parts of Wales and of the southern Uplands and in east Scotland from Fife to north Aberdeen. Totals were under 75 per cent. of average in north Staffordshire, north-east England from the Tees to the Tyne, and over the north-west Highlands.

Among the largest falls in 24 hours were:—
14th 2.18 in. at Troutbeck (Cumberland), 2.27 in. at Fort William, and 3.52 in. at Glenquoich (Inverness-shire).
15th 2.58 in. at Blaenau Festiniog (Oakley Quarry), Merioneth.
16th 3.23 in. at Borrowdale, Cumberland.

Snow occurred in south-eastern districts of England from the 23rd until the end of the month. The snowfall of the 28th and 29th was widespread and even affected the extreme south-west of England. On the 30th snow lay to a depth of 7 in. at both Scilly and the Lizard.

Thunder was heard at several places in the British Isles between the 10th and 13th.

Sunshine.—There was a marked contrast in the amounts of sunshine between the northern and other districts of Scotland. Sunshine amounted to 123 per cent. of the average in the north but to only 85 and 87 per cent. in, respectively, the western and eastern districts. Sunshine exceeded the average by more than 20 per cent. in east and south-east England but was below average in Wales and elsewhere in England.

Fog.—There was a good deal of fog between the 19th and 21st. It occurred locally at times outside this period.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 9 nights. Solar halos were noted at Oxford on 6 days.