

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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NOVEMBER, 1925: VERY DRY, COLD AND SUNNY.

General.—The mild cyclonic conditions experienced towards the end of October were maintained during the first week of November; thereafter mainly fine, dry and cold weather prevailed over the British Isles, the last week being of a decidedly wintry character with much snow but with considerable bright periods.

At the beginning of the month a deep depression covered the N.E. Atlantic, maintaining a cyclonic circulation over the British Isles. On the 1st, heavy rain and local gales were associated with the passage of a vigorous secondary to this depression across the southern half of the British Isles, e.g., 47mm. (1.86 in.) fell at Llyn Fawr (Glamorgan); 31mm. (1.22 in.) at Seskin and 26mm. (1.02 in.) at Newquay. On the 2nd another vigorous secondary centered over the Bristol Channel gave rise to further heavy rain; 48mm. (1.88 in.) fell at Holne, Devon; 32mm. (1.26 in.) at Guernsey, while, during a heavy rainstorm, the Dolgarrog reservoir in North Wales burst and the surrounding country was flooded. During these days, temperature rose in several instances to 60°F. or slightly higher. As the secondary moved towards Denmark conditions improved in its rear and by the 4th fairer weather was experienced: at a few stations in the east and south-east of England sunshine records varying between 8 hrs. and 8½ hrs. were obtained. On the 5th dull weather with some rain but with fair intervals prevailed generally. On the 7th a trough of low pressure extending eastwards from a large depression over the Atlantic caused gales in the English Channel and the Irish Sea; much rain occurred generally in England and Ireland on the 6th, 7th and 8th, 50mm. (1.97 in.) being recorded at Snowdon (Carmarthen) on the 8th.

As this trough moved south-east cold north-easterly winds, backing to north, spread over England and snow or sleet showers and low temperatures which had been experienced earlier in Scotland occurred in the south-eastern counties on the 9th and 10th. This marked the commencement of the cold spell which lasted until December 5th. Except for some rain or drizzle with occasional strong southerly winds in western districts between the 12th and 15th, associated with depressions over Iceland and the Atlantic, anticyclonic conditions with mainly fine, cold and dry weather with fog locally prevailed until the end of the month. During this period both day and night temperatures were low and ground frosts occurred generally. Winds were north-easterly or easterly over England and Ireland and westerly over Scotland. By the 23rd a northerly current had become established over the British Isles. The cold became much more intense and snow and sleet, associated with the passage in a southerly direction of depressions and their secondaries over the North Sea, occurred over the country generally and were particularly heavy in the northern and eastern districts of England. Owing to the high northerly winds accompanying the snowstorms, drifts many feet deep occurred in several places.

The general character of the month is illustrated by the following remarks taken from Observers' notes:—Arisaig (Inverness-shire).—A wonderfully fine, calm, sunny month with an unusual amount of frost and night snowfalls. Roshven (Inverness-shire).—A very pleasant month with much more sunshine than usual. Southport (Lancs.).—The coldest and sunniest November excepting (in both elements) that of 1915 during our 55 and 35 years' observations respectively. A very excessive frequency of abnormally light N. and E. winds with many fogs and nightly frosts after a warm, wet commencing week or so. Meltham.—A severe month; the last three weeks colder than any similar period in November for 48 years. Worksop (Nottingham).—The frost was unusually prolonged for so early in the season. Mean temperature was not so low as in 1910 and 1919 and was very similar to 1923. The sunshine was more than in any previous November in 45 years, though 1882 was close behind. Copdock (Suffolk).—November, 1925, presents several unusual, even if no very unique, features: the month has been rather wet, sunny and cold, a somewhat curious combination. Although the rainfall is only just above normal, the number of wet days has only been exceeded on three occasions, during the past twenty-five years: the sunshine is considerably above the average but has been exceeded on three occasions, while the mean temperature is as much as three degrees below the average, although here also I have five years which show a lower figure. The thermometer failed to rise above 35°F. from the 25th to the 28th inclusive. There is no previous November in my records in which four consecutive days show such low maxima. Totland Bay (Isle of Wight).—Only thrice in my 40 years of observations has Totland been so cold in November. The feature of this month has been the almost entire absence of fog. Dublin.—First week mild with heavy rains totalling 74.1mm. (2.92 in.) on 6 days. The remainder of the month was very cold, foggy and frosty.

Pressure and Winds.—During the first six days of the month the isobars followed the trend associated with the westerly type of cyclonic weather usual at this time of year, but the subsequent establishment of anticyclonic conditions and their persistence until the end of the month resulted in an unusual distribution of the mean isobars for the

month. Instead of the usual low pressure to the north-west of the British Isles and high pressure to the south-east, pressure was high to the west and over the north of England and low to the south-east, resulting in a cold, northerly current coming from the Arctic regions. It is interesting to recall that during the cold spell in November, 1919, a somewhat similar reversal of the normal pressure conditions took place, pressure being high to the north-west and low to the south-east of the British Isles. During the severely cold February of 1895 the pressure, during the second half of the month, was high to the west so again the source of the cold air lay in the Arctic regions. Gales occurred on a few occasions at exposed places in the south-west of England and Ireland during the first week and in north-eastern and eastern districts during the last week of the month. At Spurn Head a gust of 72 m.p.h. was recorded on the 25th. The highest recorded gust for this station is 78 m.p.h. and occurred on December 28th, 1914, and February 16th, 1916.

Temperature.—A noteworthy feature of the month was the occurrence of the cold spell which lasted from November the 8th to December the 5th. During the period night minima well below freezing point were common, and between the 25th and 28th maximum temperatures as low as 32°F. were recorded in Scotland and Northern England. The mean temperature was below normal in all districts, the largest defect 5.3°F. occurring in England N.W. and the smallest 1.7°F. in Scotland N. The month was not so cold as November, 1919, when the largest defect was 6.5°F. in Scotland E. and the smallest 4.5°F. in the Channel Isles. For the British Isles as a whole the absolute maximum and minimum temperatures in November, 1919, were 63°F. and -10°F. compared with 64°F. and 12°F. during the present month. Ground frosts were of common occurrence and at several stations exceeded 20 in number. The extreme temperatures for the month were:—(England and Wales) 64°F. at Margate on the 1st, 15°F. at Garforth (West Riding) and Belvoir Castle on the 14th; (Scotland) 61°F. at Onich (Inverness) on the 1st, 12°F. at Wolfelee (Roxburgh) on the 26th; (Ireland) 59°F. at Killarney and Cork on the 2nd, 20°F. at Dublin (Botanic Gardens) on the 13th and at Markree Castle on the 20th.

Precipitation.—With the exception of the Channel Isles, precipitation was below normal in all districts. The greater part of Scotland had less than half the normal, and considerable areas only one third or even less. At Greenock and Fort William the month was the driest November for at least 50 years. At Perth there was no measurable precipitation from the 8th to the 28th, and at Edinburgh only on the 29th and 30th was there as much as 2.5mm. In England rainfall exceeding the normal occurred along the sea-board districts extending from Newcastle-on-Tyne to the Isle of Wight and over small areas in the Mersey basin and in Devonshire and Cornwall. In Ireland precipitation exceeding the normal occurred along a narrow coastal strip extending from Dublin to Wexford. The general precipitation of the British Isles expressed as a percentage of the normal was 73; the values for the several countries were:—England and Wales, 88; Scotland, 45; Ireland, 69.

Snow fell in the north of Scotland from the 7th to the 10th (6 in. at Achnasheen) and over the country generally during the last week of the month.

Along the eastern seaboard of Great Britain the falls were heavy and in some cases were accompanied by thunder and lightning. "Snow lying" to a depth of between 6 and 7 inches was recorded at Hull and Norwich on the 28th and at Abroath on the 30th.

Sunshine.—In spite of the unsettled weather during the first week of the month, and later the frequent occurrence of fog, sunshine was in excess in all districts, the largest mean daily excess, 1.40 hr., being experienced in England N.W. and the smallest excess 0.25 hr., in the Channel Isles. At Edinburgh the month was the sunniest November since 1909, at Richmond (Kew Observatory) the total for the month was the highest recorded there in November since 1883 when 81 hours were registered.

Fog.—During the anticyclonic period, fog was of common occurrence. In London dense fog occurred on the 14th. In Scotland in the Forth and Clyde areas and in the north of England dense fog occurred locally from the 17th to the 23rd—in Glasgow almost continuously for a week and in Edinburgh from the afternoon of the 16th to the evening of the 18th.

Miscellaneous Phenomena.—Halos were observed on various dates; a halo at Oxford on the 30th being accompanied by a parhelion. Aurora was observed at Aberdeen on the 9th, 10th, 11th, 14th, 16th and 22nd, at Gordon Castle (Elgin) on the 5th, at Armagh on the 8th, 9th and 10th, at Wick and Dublin on the 9th, at Lerwick on the 10th and at Ballinacurra on each day from the 23rd to the 28th. The Zodiacal light was observed at Oxford on the 12th. The observer at Meltham reported having observed on the 29th at 10.55 a.m. a fine example of the circumzenithal arc with colours (blue near the zenith) very sharp and well-defined against a clear sky. At the same time a parhelion on the west side of the sun, bright, but ill-defined, was seen, also faint traces of the halo of 22°.