

## MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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### OCTOBER, 1926: UNSETTLED. FIRST FEW DAYS UNUSUALLY WARM, LAST FORTNIGHT VERY COLD.

**General.**—The first half of the month was generally warm and unsettled with considerable fair periods and the latter part cold with frequent ground frosts and snow in northern districts.

After the passage of a secondary depression which caused some heavy rain in Scotland, e.g., 64mm. (2.52 in.) at Ardnadam on the 1st, an anticyclone became centered over the British Isles on the 3rd. Fair quiet weather prevailed generally with local early morning fog and in many places good sunshine records were obtained on the 2nd and 3rd and in Scotland on the 4th. At Leuchars 10.0 hrs. sunshine were recorded on the 4th. Temperature was high for the time of year maxima of over 70°F. being recorded while 77°F. occurred at Perth on the 4th. Thunderstorms occurred in many parts of England on the 5th and 6th by which time the anticyclone was withdrawing eastwards and low pressure systems spread gradually over the British Isles. On the 8th and 9th associated with the passage of a deep depression over northern Scotland rain fell in most districts and was heavy in the north and west e.g., 60mm. (2.35 in.) fell at Snowdon on the 8th. Widespread gales on the 9th accompanied the passage of this depression. During the next few days the passage of depressions maintained unsettled weather in all districts with much rain at times and occasional high winds or gales on exposed parts of the coast; 51mm. (2.01 in.) of rain fell at Stonyhurst on the 12th, 50mm. (1.98 in.) at Montgomery on the 13th and 45mm. (1.77 in.) at Achnashellach on the 14th.

By the 14th associated with an anticyclone in the neighbourhood of Iceland a polar current was spreading southwards while in southern districts the passage of a few shallow depressions maintained mild unsettled weather. On the 17th mainly fair cold weather prevailed in all districts and during the next few days day temperature remained mostly below 50° with sharp frost at night and local fog in the morning. In northern districts showers of snow sleet or hail were experienced. On the 21st depressions were developing over France and near the Hebrides and conditions became generally unsettled with much rain at times and some hail, sleet and snow even as far south as Kent and the Isle of Wight. The passage of a deep depression on the 25th caused heavy rain and high winds and gales in many places: 83mm. (3.27 in.) fell at Snowdon.

The general character of the month is illustrated by the following remarks taken from observers' notes:—Comondale—Exceptionally cold weather during last fortnight. Southport—The month was notable for a very large extreme range of temperature. First few days were unusually warm and calm. Second week stormy. The concluding fortnight was exceptionally cold with constant light north to east winds. Meltham—The last fortnight was colder than in any October for at least half a century. Hodsock—A relatively dry month with a few very warm days at first. Northerly winds during the last fortnight with unusually cold nights. Copdock—The warm weather of September persisted for the first eight days of October and for a further six days it remained mild; after that the month was cold, low temperatures both in the screen and on the grass occurring every night—the screen minimum of 27°F. on the 27th is the lowest I have ever recorded in October. Snow fell on the 21st. Morwenstow—The latter half of October was remarkable for the longest period of sustained cold I have experienced for 31 years during October. Newquay—Former half of month quite warm, latter half very cold. The minimum temperature of 28.8°F. on the 24th is 4° below the previous record lowest minimum for October. Dublin—Very warm for the first seven days. Very cold from the 14th to the close of the month. Cork—A cold month. During second half of month ground frost was almost of nightly occurrence.

**Pressure and Winds.**—In general the mean pressure was above the normal in the western districts of the British Isles and below the normal in the eastern districts with an area of relatively high pressure over southern central England. The general trend of the isobars differed from the normal, the usual south-westerly type being replaced by a northerly type with a considerable frequency of winds between a north-west and north-east. The deviations of monthly means of pressure at fixed hours varied from +1.4mb. at Malin Head to -1.5mb. at Richmond (Kew Observatory). High winds and gales occurred widely on the 9th, in northern and western districts around the 13th and widely around the 25th. During the gale at Fleetwood on the 9th the wind averaged 58 mi/hr. for at least an hour and in a gust attained a speed of 72 mi/hr. A gust of 72 mi/hr. was also recorded at Spurn Head during the gale on the 9th.

**Temperature.**—The mean temperature of Districts 1-10 was 46.7°F. and was 2.3°F. below the normal. In all Districts there was marked mildness during the first 10 days or so of the month, day temperatures being in the neighbourhood of 70°F. between the 3rd and the 6th. but thereafter temperature gradually fell, the last two weeks of the

month being unusually cold with record low screen minima in many places. The effect of this cold weather was to depress the mean temperature below the normal in all Districts, the greatest deficit 4.1°F. occurring in Scotland E. (mean temperatures 42.4°F.) and the least deficit 0.6°F. in the Channel Isles (mean temperature 53.4°F.)

The week ending October 23rd was remarkably cold in all Districts, the general deficiency from the normal mean temperature amounting to as much as 10°F. in Scotland E. and Scotland W., the greatest deficiency on record for an October week for these Districts since comparable Districts values first became available in 1878. The minimum temperature of 13°F. at Braemar on the 27th and at Wolfelee on 31st has seldom if ever been recorded in October. The absolute range of temperature exceeded 50°F. at several stations and amounted to as much as 62°F. at Braemar. Ground frosts occurred frequently during the latter part of the month; in northern districts they occurred on almost every night during this period.

The extreme temperatures for the month were:—(England and Wales) 75°F. at West Kirby on the 2nd, at Wakefield on the 3rd and at Comondale and Sealand on the 4th, 17°F. at Garforth and Rhayader on the 24th. (Scotland) 77°F. at Perth on the 4th, 13°F. at Braemar on the 27th and at Wolfelee on the 31st. (Ireland) 75°F. at Killarney on the 3rd, 17°F. at Markree on the 31st.

**Precipitation.**—The general precipitation during October, 1926, was below the normal over England and Wales and Ireland, notably over the former country, but as there was a marked excess over Scotland where the general precipitation amounted to one and a half times the normal, the general precipitation over the British Isles did not differ markedly from the normal. The general precipitation of the British Isles expressed as a percentage of the normal 1881-1915 was 104; the values for the constituent countries were:—England and Wales, 86, Scotland 151, Ireland 96. The value for Scotland is the highest recorded for October since 1917.

In England and Wales precipitation exceeded the normal in inland areas in North Wales and in Lancashire, locally in the eastern counties and in parts of Gloucestershire, Somersetshire and Wiltshire. The greatest deficiency occurred generally in areas to the south of a line drawn from Ilfracombe to Margate.

In Scotland monthly totals were below the normal in one or two places but in general there was a well marked excess notably in the Clyde area, Forfarshire and some northern districts. At Deerness the month was the wettest October since 1845 and the precipitation exceeded that recorded in any month of any year in Orkney back to at least 1841.

In Ireland precipitation exceeding the normal occurred mainly in the northern and north-western districts; at Malin Head more than twice the normal amount of precipitation fell during the month. The greatest deficiency occurred in the extreme southern counties where for example little more than half the normal amount of precipitation fell at Cahirciveen, Killarney, Waterford and Roehes Point.

During the second half of the month hail fell on several occasions in most districts while snow showers occurred frequently in northern districts and on a few occasions in some of the southern counties. In Scotland snow fell in the north on the 18th and on various days thereafter there were heavy falls. At Dalnaspidal (Perthshire) snow lay to a depth of 12 inches on the 28th. At Balmoral the depth of "snow lying" on the morning on the 29th was 6½ inches. Thunderstorms occurred locally on the 5th and 6th, round about the 10th, on the 15th and on several days during the period 21st to the 29th.

**Sunshine.**—The mean daily duration of sunshine was mostly above the normal in the northern districts of the British Isles and about normal in the southern districts. The deviations from normal varied from +1.02 hrs. in Scotland E. (mean daily duration 3.82 hrs.) to -0.12 hrs. in England S.E. (mean daily duration 3.32 hrs.). Good sunshine records were obtained on several days generally around the 9th and the 10th, on the 26th and on the last two days of the month.

**Fog.**—Fog, thick locally, occurred fairly frequently during the month. The foggiest periods generally were the first week of the month and from about the 20th to the 23rd.

**Miscellaneous Phenomena.**—Many halo phenomena were recorded during the month, the most frequently observed being the halo of 22°. Haloes of 22° and 46° with upper arcs of contact were observed simultaneously at Cambridge on the 31st. Observations were made at Oxford of parhelia on the 4th, 19th and 31st and of a sun pillar on the 16th. Aurora was observed at Lerwick on the 1st, at Crieff on the 19th and here and there in Scotland on the 13th and 19th. Brilliant displays of aurora were observed on the 14th and 15th at several stations in Scotland, northern England and northern Ireland.\* Auroral glows were recorded at Lerwick Observatory on the 7th, 9th and 11th.

\* For accounts of the aurora of the 14th and 15th, see "The Meteorological Magazine" November, 1926, p.243.