

## MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, AND AT GIBRALTAR AND MALTA, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANIZATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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## Damp and Variable.

In many respects the weather was more nearly normal in September than was the case during the three previous months. In the southern districts the temperature not infrequently rose to 294 a, and on some occasions it reached 297 a. There were, however, relapses from these pleasant conditions and on some days in parts of England the temperature remained below 286 a; while in Scotland on the 20th the maximum at Nairn and Wick was only 281 a. Commonly, the maximum for the month occurred on the 12th, when 297 a was recorded at a number of stations and 298 a at Bexley Heath and Reading. The coldest days occurred during a cold spell which was widely experienced from the 16th to 24th, some of the lowest temperatures recorded being 272 a at Howden (Yorks), 273 a at Birr Castle, and 274 a at Eskdalemuir and Ross-on-Wye on the 20th; 271 a at Howden, 272 a at Nottingham, and 273 a at Renfrew on the 21st; and 270 a at Braemar on the 22nd. On the 21st a grass minimum of 269 a was recorded at Howden, and 270 a at Renfrew. Contrasted with these low readings were the minima at Roche's Point and Scilly on the 26th (287 a) and at Valencia Observatory on the 27th (288 a).

The rainfall of the month was commonly below the normal, but a good many stations had an otherwise favourable record spoiled by a heavy fall of rain during the closing hours of the 30th. Sheepstor, for instance, had 37 mm. on this day, equal to 32 per cent. of the month's total fall, a downpour of 43 mm. at Falmouth contributing 42 per cent. Apart from the rainfall there was much precipitation in the form of dew, wet fogs, and mists, which were especially prevalent during two anticyclonic periods which extended from the 8th to 14th and from the 19th to 29th. At Totland Bay (Isle of Wight), where the mean humidity at 9 h was 87 per cent., it was the dampest September since 1897. The observer at this station also reports that the springs are keeping well up this autumn, in spite of a dry August and nearly normal September rainfall. The observer at Southport reports that the special features of the month were the frequent calms, the high relative humidity (mean at 9 h 87 per cent. and 6 per cent. above normal), the very small evaporation (only 1.14 in. from tank, or 0.44 in. below normal), and the further large deficiency of due easterly winds, less than half the normal number of hours being experienced.

Between the 19th and 23rd, owing largely to shallow depressions over France, there were frequent thunderstorms in Southern and Eastern England, accompanied in some instances by very heavy rain. At Margate on the 21st rain fell from 6 h—23 h to a depth of 44 mm., the downpour between 9 h and 10 h, when there was a thunderstorm, being torrential, with the result that the lower parts of the town were flooded. At Faversham, also during a thunderstorm, and on this same day, large hailstones fell. Lowestoft experienced a severe thunderstorm and heavy rain on the 21st, which was described as a "cloud-burst," and floods resulted, a visitation which was accompanied by a waterspout at sea. Between the 18th and 21st some very wet weather, with thunderstorms, was also experienced at Guernsey, the total fall for these four days at Brooklyn being 92 mm. and at Villa Carey 90 mm.

**Flying Weather.**—Conditions were favourable in the second week and towards the close of the month. For the rest of the period they were only moderate, but continuously unfavourable days were rare. In South-East England the worst days were the 21st, with continuous heavy rain and thunderstorms in places, and the 25th, when there were persistent low clouds, and occasional rain on the coast. Towards the end of the month there was much fog at night and in the morning, but it cleared in the daytime.

**Air Pressure.**—As shown by the map on page 115 the mean trend of the isobars was more south of west than on a normal map, the gradient in the north and west of the British Isles being steeper than usual. At the telegraphic reporting stations the departures of the monthly means from the normal varied from +2.4 mb at Scilly to -1.4 mb at Blacksod Point. During the first seven days the air pressure was high in an anticyclone over the Azores, and lowest in the Icelandic-Scandinavian region, and during

this period the weather in the British Isles was for the most part dull, showery and unsettled. A depression which appeared during the 3rd-4th to the north of Scotland moved slowly to southern Scandinavia and remained for several days. On the 7th another depression over Iceland extended south and east and affected adversely the conditions along the west coast of the British Isles, the anticyclone which had been centred over the Azores spreading at the same time to southern England and north-east France and maintaining fine to fair weather over a large part of the British Isles. Another anticyclone came up from the Azores during the afternoon of the 9th and, except in the north and west parts of the British Isles, which were affected by an Icelandic depression, the weather was mainly fine and dry until the 14th. During this period many English stations on some days had ten hours sunshine and maximum temperatures of 297 a and above were recorded. On the 14th a large depression from Iceland extended its influence over the whole of the British Isles and was followed on the 16th by another depression with attendant secondaries (tracks E and F), with the result that dull, rainy weather continued until the 18th. During this period (14th-18th) there were some very heavy falls of rain, 21 mm. falling at Pembroke on the 14th, 20 mm. at Jersey on the 15th, 20 mm. at Yarmouth on the 16th, 21 mm. at Falmouth on the 17th, and 26 mm. at Banff and 25 mm. at Nairn on the 18th. On the latter date there was a gale in the English Channel and thunder at Falmouth. From the 19th to 29th the weather of the British Isles was mainly dominated by anticyclones covering roughly the area from Madeira to the Baltic. At the same time the extreme northern districts were affected by depressions moving in the Icelandic region, and there were occasional thunderstorms in southern and eastern England, but elsewhere the weather was mainly fine.

**Temperature.**—The mean temperature of the month did not differ greatly from the normal, the departures ranging from +0.3 a in Scotland North and in Ireland North and South to -0.3 a in the English Channel district.

**Precipitation.**—Over the British Isles as a whole the rainfall was below the normal. A considerable area in the south-east of England, and small isolated patches in Ireland and in central Scotland had, however, more than the normal. Less than 50 mm. was recorded over large areas in England from Bournemouth and Torquay across to Boston, and extending along the East Coast in a broad band to Aberdeen. In Ireland the south-east portion had less than 50 mm. More than 150 mm. was confined to the high land of the Lake District, Wales, Inverness, Connemara, and Kerry. The general rainfall expressed as a percentage of the normal was:—England and Wales 95, Scotland 87, Ireland 85, and the British Isles as a whole 89.

**Sunshine.**—Generally speaking, the sunshine of the month was deficient, but there were a good many sunny days, especially from the 9th to the 14th, when more than ten hours a day were recorded in some parts of the country. There was also plentiful sunshine during the week which ended on the 25th, the percentage of the possible duration for this week being as high as at any time during the year.

**Optical Phenomena.**—Solar halos were seen at many stations between the 1st and the 4th and over a large part of the British Isles on the 10th and 11th, those seen on the latter date being often very bright and very prolonged. They were also very frequent during the week which ended on the 18th. Parhelia were seen at Valencia Observatory on the 18th and 30th. A moon pillar, with "cross" effect, observed at Aberdeen on the 22nd, was contemporaneous with a display of aurora.

**Aurora** was seen at some Scottish stations between the 8th and the 22nd, and also on the latter date at Armagh and Valencia Observatory.

