

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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Variable, But Mostly Fine and Dry.

As a whole the weather of the month was fine, dry and quiet, and although somewhat variable it was, as a rule, of a typical September character, conditions which, in most parts of the country, proved very favourable for agricultural and other outdoor operations. During the first few days there was much cloud and an absence of sunshine, with heavy rain in places, but by about the 6th the outlook became brighter, an improvement which was followed by an unusually hot spell; many stations in England recorded maxima of 300a and above on the 11th, this in many instances being the hottest day of the year. After this, however, the temperature decreased very rapidly, and on the 19th a northerly wind at the rear of a depression caused an inflow of cold air over the greater part of the British Isles, and minima below 273a were recorded in several places the following morning. From the 20th to the end of the month the temperature remained low for the time of year, and many of the nights were very cold. Commonly the 29th was the coldest day of the month, the frosts experienced about this date doing much damage to vegetation. There were no gales of a general character during the month, and thunderstorms, although reported on several days, were only occasionally very extensive. Fog, mist and haze, with heavy dew on some days, were fairly frequent, but there were no widespread fogs. On the 19th conditions were quite wintry in Scotland, with snow and hail in upland districts. Snow also fell on the 20th at some of the English stations.

The following notes by observers illustrate the general character of the month:—*Copdock, Ipswich*.—The driest September in my 18 years' records. I have never before had a frost in the screen in September, whereas minima of 272a occurred this year on two occasions. The maximum temperature of the year, 302a, was reached on the 11th, the latest date this has ever occurred in my experience. *Bromyard, Hereford*.—Fair harvest weather was experienced during the month, but the frost on the 29th cut off runner-beans, marrows and tomatoes. Most of the swallows had gone by the 27th. *Ross, Hereford*.—A variable month. Great damage to vegetation was done by the frost on the 29th. The River Wye still flowing at an abnormally low level. *Totland Bay, Isle of Wight*.—On the 29th the shade minimum temperature fell to 275a, which was the lowest recorded in any September at this station during 33 years. *Southport, Lancs*.—A typically fine, serene September, though this summer's notable deficiency of easterly winds continued. *Sheepstor, Dartmoor*.—On the 20th 2 inches of snow fell on Exmoor and (above 1,600 feet) on Dartmoor. All round Princetown on the moor there was enough snow to track rabbits. I cannot find anyone who remembers a fall of snow like this in September. A sharp frost preceded the snowfall. *Dublin (Fitzwilliam Square)*.—A favourable month which was at first warm and generally fine and dry, but unsettled and with some sharp cold spells in the latter part. The mean temperature of the fortnight ended on the 13th was 288.0a, but that of the following fortnight was only 284.1a.

As shown by the map on p. 99, the mean monthly trend of the isobars was slightly more westerly than in a normal September, the gradient being, moreover, much steeper than usual. From the adjoining map on the same page it will further be seen that, with the exception of one on the 22nd, the centres of all the primaries during the month passed outside the limits of the British Isles. The following are some of the more prominent incidents connected with the anticyclones and depressions of the month:—On the 1st a depression was shown on the weather map off the north-west coast of Ireland, a system which dominated the weather during the opening days of the month and brought heavy rain to many stations, as much as 44mm. falling at Holyhead on the 1st. A new depression, which from the wireless reports appeared to extend well out into the Atlantic, was shown off the West of Ireland on the 4th, cloudy and overcast weather, with some heavy rain in places, accompanying this on-coming disturbance. This depression remained unaltered in position until the morning of the 6th, when it moved quickly north-eastwards, its passage having been attended by light south and south-westerly winds and mild weather over the British Isles generally. In the rear of a depression to the North of Scotland the air pressure on the 6th increased rapidly and brighter weather was experienced, some stations on this day enjoying as many as 11 hours of sunshine. During the next few days an extensive anticyclone which spread northwards from France was associated with fine, warm weather over the greater part of the country, the temperatures recorded on the 11th being in many instances the highest for the year. This anticyclone was reinforced

by another such system which appeared over Scotland early on the 12th. On the 14th a north-easterly wind which caused a general reduction in the air temperature was accompanied by a thunderstorm and heavy rain in the vicinity of the Thames Valley, a man sheltering beneath an elm tree in Finsbury Park being killed by the lightning. Anticyclonic conditions with variable weather and good records of sunshine were maintained until the morning of the 17th, when a depression between the North of Scotland and the Farøe Islands occasioned a circulation of moderate to strong winds with dull, rainy weather over nearly the whole of Britain. As this system moved eastwards secondaries developed over England and France, the weather of the 19th being characterised by a very low temperature for the time of year, with snow and hail showers in the northern parts of the Kingdom. Further secondaries developed on the 20th and snow showers were again reported, gales also being experienced at many stations on the north and west coasts, a wind of force 10 from the north being reported from Houton Bay (Orkney) and Lerwick (Shetland). Thereafter until the morning of the 27th the weather generally was mainly dominated by depressions moving between Iceland and Scandinavia, numerous secondaries, with gales locally, being prominent features of this period, the conditions in all districts being extremely variable. During the last four days anticyclonic weather prevailed, these closing days being characterised by much frost, the 29th very commonly being the coldest day of the month.

Temperature.—In England S.E. and in the English Channel the mean temperature for the month was exactly normal, and in England North-East and East there was a slight excess of 0.2a. Elsewhere the mean was below the normal, but the deficiencies were not very large, the greatest being 0.4a in Scotland West. In Scotland, generally speaking, the temperature was above the normal during the earlier part of the month and below it during the second half. There was some extremely rapid fluctuations, and at Leith, for instance, the highest reading on the 10th was 295a, but only 284a on the 12th; while on the 19th, with northerly or north-westerly winds, the maximum at Aberdeen was only 281a, compared with 292a on the previous day. The highest temperature recorded in the British Isles during the month was 305a at Raunds (Northants) on the 11th, and the lowest 269a at West Linton (Peebles) on the 28th, and at Porton (Wilts) and Wokingham (Surrey) on the 29th. At Greenwich the maximum recorded was the highest at this station for the year, and only twice before during 65 years has the September maximum been the extreme for the year. At Kew Observatory the shade minimum (north-wall-screen) was 272a on the 30th, so low a temperature having never before been recorded here in September.

Precipitation.—In the three Scottish districts and in Ireland North the total precipitation for the month was above the normal, the greatest excess being 54 mm. in Scotland North. In all other districts the totals were deficient, the deficiencies ranging from 28 mm. in England East to 4 mm. in the English Channel, the former district having only 8 rain-days, compared with 22 in Scotland North. At Balmoral 26 mm. fell on the 20th, 30 mm. at Gordon Castle on the 22nd, 41 mm. at Glenquoich (Inverness) on the 24th, followed by 67 mm. on the 25th. On the 1st at Beddgelert 92 mm. fell and caused big floods.

Sunshine.—Except in England South-West and in the English Channel, where there were slight deficiencies of 0.05 and 0.10 hr. per day, the mean daily amount of sunshine was above the normal, the excess ranging from 0.89 hr. in Scotland East to 0.16 hr. in the Midlands. At Aberdeen a sunnier September was recorded only in 1906 and 1907.

Optical Phenomena.—Solar halos were seen at a few stations, but lunar halos were rare. Parhelia were seen at Valencia Observatory on the 13th and at Oxford on the 20th. The Zodiacal Light was observed at St. Louis Observatory (Jersey) on the 8th, 29th and 30th.

Aurora was observed at Aberdeen on ten occasions, and on various dates at several other stations, the most widely-seen displays being those of the 19th and 20th.

90—
80—300
70—
60—290
50—
40—280
30—270

Temperature Scales.