## MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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## SEPTEMBER, 1938.-Dull; rather warm; wet in Scotland.

The weather of the month was dull, with mean temperature slightly above the average. Rainfall exceeded the average in Scotland but in England and Ireland the distribution was variable.

On the 1st pressure was very uniform and weather cool with showers and bright intervals and local thunderstorms. During the following days pressure was high off the south-west coasts, while depressions moved south-east from the neighbourhood of Iceland causing rather unsettled, cool weather. Mainly fair weather with good records of bright sunshine, particularly in England and southern Scotland, prevailed for the most part on the 2nd but rain fell in the northern half of the country in the evening, and on the 3rd it was reported over a wider area including east England but not the south of England or south Ireland. Low screen minima were registered locally on the first three days. The depression which moved south-east over the country from the 5th-7th caused rain at times in most places and local thunderstorms.

Between the 8th and 12th an extension of a large anticyclone on the Atlantic moved slowly south-east over the British Isles; rainfall was slight on the whole during this period, though it was heavier in the north of Scotland on the 10th and 12th. Temperature continued rather low over most of England until the 10th but rose in Scotland and Ireland; 76°F. was registered at Perth on the 8th and 77°F. at Logie Coldstone on the 10th. By the 12th it was warm generally and 80°F. was registered at Stonehaven and at a number of stations in east and south-east England.

A trough of low pressure associated with a depression over Scandinavia moved south-east over the British Isles on the 13th and 14th; rainfall was heavy locally in the north on the 13th and some rain occurred in most districts on the 14th, while gales were reported locally in Scotland on the 12th and 13th. Cool polar air in the rear of this disturbance caused a considerable fall of temperature. A further period of unsettled weather ensued: between the 16th and 19th a depression off north-west Ireland moved in slowly over the British Isles and on the 20th and 21st secondaries to a depression south-west of Iceland travelled north-east over the country. Heavy rain fell at times and local thunderstorms occurred from the 17th-19th and on the 21st. On the 22nd an intense depression approached the west of Ireland and on the 23rd it moved north and became much less deep; gales were reported in the west and north on the 22nd and 23rd and rain occurred in the west and north on the 22nd and more generally on the 23rd, but many places in south-east and east England had little or none. Temperatures were high in many parts on the 23rd and 24th and reached 80°F. locally in south-east and east England. Between the 24th and 26th shallow secondaries moved northward over the British Isles causing considerable rain at times in the southern half of the country and local thunder. On the 27th and 28th a depression off the south of Ireland moved north-east over England and on the 29th and 30th, a low pressure system covered the British Isles; the weather was unsettled with heavy rain locally at times but with periods of bright sunshine.

Pressure and Wind.—Mean pressure was slightly below the average except at Lerwick, where a small excess was recorded. The deviation from the average at 7h. ranged from +0.4 mb. at Lerwick to -1.5 mb. at Birr Castle.

Gales occurred at times; they were reported locally in the west and north of the British Isles on the 22nd and 23rd and locally in Scotland on the 10th, 12th and 13th. Among the highest speeds registered in gusts were 81 m.p.h. at Valentia Observatory and 56 m.p.h. at Aldergrove on the 22nd, 57 m.p.h. at Kirkwall on the 12th and at Bell Rock Lighthouse on the 13th and 55 m.p.h. at Stornoway on the 23rd.

Temperature.—Mean temperature exceeded the average on the whole, the excess being greatest in Scotland. The deviation from the average for the districts ranged from 0°F, in the Channel Islands to +1.7°F, in Scotland, E. The opening days were cool and in parts of England it continued rather cool until the 10th. Polar air brought lower temperatures to northern districts on the 14th and throughout the country on the 15th. Warm days included the 8th, 10th and 12th in Scotland, the 8th, 12th and 13th in Ireland, and the periods 11th-14th and 22nd-25th in England. Temperature reached or somewhat exceeded 80°F, locally in east and south-east England on the 12th, 13th, 23rd and 24th, and 80°F, was registered at Stonehaven, Kincardineshire, on the 12th.

The extremes for the month were:—(England and Wales) 83°F. at London (Camden Square) on the 23rd, 29°F. at Houghall on the 15th; (Scotland) 80°F. at Stonehaven on the 12th, 26°F. at Dalwhinnie on the 2nd; (Ireland) 74°F. at Hazelhatch on the 8th, at Markree Castle, Waterford and Ballinacurra on the 12th and at Newcastle (Co. Wicklow) on the 12th and 13th, 33°F. at Newtownforbes on the 15th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881-1915 was 105, the values for the constituent countries being England and Wales 94, Scotland 127 and Ireland 105. In Scotland the excess was general except in the Orkney and Shetland Islands and at a few rather isolated places elsewhere. More than 120 per cent occurred over a large part of the eastern districts. In England and Wales less than the average was received in the western half of the country and in small areas elsewhere; less than 50 per cent occurred in parts of south Wales, north Devon and Hampshire. More than the average was measured over most of the Midlands and eastern half of the country and more than twice the average occurred in small isolated areas in Cambridgeshire and Essex. In Ireland more than the average was received in the extreme north-east, in the south and extreme west, but over a large belt extending north-west over the central regions there was less than the average.

Among the heavier falls in 24 hours were:-

16th. 2.39 in. at Kinlochquoich (Inverness-shire).

2.30 in. at Lennoxtown (Stirlingshire), 2.10 in. at Dunoon and 2.08 in. at Glenbranter.

17th. 1.89 in. at Borrowdale (Cumberland).

18th. 2.67 in. at Cannington, 2.17 in. at Weston Park (Warwickshire) and 1.81 in. at Purton (Wiltshire).

24th. 1.75 in. at Much Hadham (Hertfordshire).

27th. 2.32 in. at Chelmsford, 1.89 in. at Goudhurst, and 1.86 in. at Warbleton (Sussex).

Thunderstorms occurred at times; they occurred at numerous places on the 1st and were reported locally on the 3rd, 6th, 7th, 17th-19th, 21st, 23rd-25th, 27th and 30th. A man was killed by lightning at Ealing, near London, on the 6th.

Sunshine.—A distinguishing feature of the weather was the deficiency of sunshine which was almost general; the percentages of the average for the districts ranged from 78 in the Midlands to 95 in Scotland, N. A slight excess occurred at a few stations in the north and north-east of Scotland and at a single station in south Devon.

Fog.—A good deal of fog occurred from the 11th-13th, 26th-28th and 30th. It occurred locally at times outside these periods; for example, 1st-2nd, 10th-14th, 17th, 19th, 21st and 24th-25th.

Miscellaneous Phenomena.—The aurora was seen locally in Scotland on thirteen nights; it was observed at Holyhead on the night of the 14th-15th. A brilliant meteorite was widely seen at 8.35 p.m. on the 2nd. Solar halos were noted at Oxford on eleven days.