

Monthly Weather Report

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

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September, 1949 - Exceptionally warm; dry on the whole.

The weather of the month was distinguished by exceptional warmth, the nights in particular being exceedingly warm for the most part. It was dry on the whole except in the south-west and sunnier than usual in most areas especially in the north-west. The month was somewhat quieter than usual, particularly in northern districts.

During the first six days of the month a depression was situated north-west or west of the British Isles and troughs of low pressure or secondary depressions swung round it across the British Isles. Warm weather prevailed and rain fell at times in most areas but the amounts were variable, while sunshine records were good on the whole; high temperatures were recorded, particularly on the 4th and 5th. Thunderstorms occurred during this period, being widespread on the 4th and 5th. Thereafter from the 7th-9th a belt of high pressure extended from the anticyclone north of the Azores across southern England and France, while small depressions moved east-north-east along our northern seaboard; rain fell in the west and north and was heavy in north-west Scotland; during these three days more than 5 in. fell at Broadford, Skye. On the 10th and 11th a trough of low pressure moved slowly south-east across the British Isles; rain, mainly slight, occurred locally in Ireland and Scotland on the 10th but it was fair generally on the 11th. On the 12th an anticyclone centred north of Scotland moved east, while a trough of low pressure off our south-west coasts moving north-east gave rain later in the extreme south-west. This trough subsequently moved north across the country causing heavy rain locally in the south of England on the 13th and in south and east Britain on the 14th. On the 15th another small secondary depression over Cornwall moved north-east; rain fell in most places on the 15th and locally, chiefly in the north, on the 16th. Thunderstorms were experienced in some parts on the 14th and 15th.

Subsequently a wedge of high pressure moved in over the British Isles and, thereafter until the 21st, pressure was high in a belt extending across Scotland to Norway. Meanwhile a trough to a depression off our south-west coasts extended from south-west Ireland to north France, where it remained almost stationary for several days; heavy rain occurred in south-west England on the 20th and 21st. Subsequently the trough moved slowly north on the 22nd and 23rd, giving rain and local thunderstorms, particularly in England, Wales and east Scotland. On the 24th a new depression south of Iceland moved south-south-east; rain fell in England and Wales, Ireland and south Scotland, with local thunderstorms.

Thereafter conditions were mainly anticyclonic; from the 25th-29th a large anticyclone over central Europe maintained fair weather, apart from mist or fog, over most of the British Isles, and on the last day of the month a ridge associated with an anticyclone in mid-Atlantic extended over this country.

Pressure and Wind.—Mean pressure somewhat exceeded the average except in the extreme south of England and Wales, the deviation at 9h. ranging from +4.2 mb. at Lerwick to -2.4 mb. at Scilly. The pressure gradient was southerly compared with the usual westerly and was less steep than the average. The total run of the wind was appreciably less than the average. Gales occurred locally at times, chiefly on the 2nd, 5th, 8th and 21st. Among the highest gusts registered in knots were 49 at Birmingham on the 5th and at Lerwick on the 8th and 30th and 51 at Pendennis Castle on the 21st.

Temperature.—The mean temperature for the month was exceptionally high; the deviation from the average for 1906-35 was +5.4°F. in England and Wales, +4.0°F. in Scotland and +3.9°F. in Northern Ireland. Over the British Isles as a whole it was probably the warmest September since 1895, though September 1898 was nearly as warm. At Kew Observatory and Oxford the mean temperature was the highest for September in their long records going back

to 1871 and 1815 respectively. In general the temperature reached its peak on the 4th or 5th, when maxima of 90°F. were reported locally in the south-east. The night of the 4th-5th was also exceptionally warm; the readings 69°F. at Oxford and 67°F. at Kew Observatory were both record high minima for September. Rather low minima occurred locally on the 18th and in Scotland and Northern Ireland also on the 30th. Temperature in the screen fell below 30°F. at Dalwhinnie, Braemar and Balmoral on the 30th.

The extreme temperatures in the screen were:—(England and Wales) 91°F. at Maldon, Essex on the 5th, 36°F. at Rhayader on the 18th; (Scotland) 80°F. at North Berwick and St. Abb's Head on the 5th, 26°F. at Dalwhinnie on the 30th; (Northern Ireland) 73°F. at Ballykelly and Castlerock on the 5th, 36°F. at Aldergrove on the 30th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 80 over England and Wales, 74 over Scotland and 90 over Northern Ireland. In Scotland the deficiency was almost general, though somewhat more than the average occurred locally on the mainland in the extreme north-west and locally in Fife. Less than half the average was received in mainly inland areas in the region extending from Nairn to Lanarkshire and in East Lothian; at North Berwick and Crieff it was the driest September for 20 years. In England and Wales more than the average occurred in an area extending from the Scillies to the Isle of Wight and stretching north over Hereford and Oxford, with a small area of deficient rainfall over north Wiltshire. More than the average occurred also in east Kent, locally on the coast of East Anglia and at Berwick-on-Tweed. On the other hand less than 25 per cent. of the average was registered in a narrow belt extending from the London area to Cambridge and locally in a strip from the mouth of the Dee to Manchester. In Northern Ireland the rainfall was average or slightly above in an area covering the south of County Down and extending west to Omagh in Tyrone and north to Garvagh. Rather less than 75 per cent. occurred at Londonderry and at Lisburn. The number of days with measurable rain was considerably below the average at most stations.

Among the heavier falls in 24 hours were:—

9th	2.53 in. at Broadford (Skye) and 2.41 in. at Kinlochhourn (Inverness-shire).
13th	2.21 in. at Falmouth.
14th	2.14 in. at St. Abb's Head.
20th	2.44 in. at West Looe (Cornwall).
21st	2.79 in. at Creech Grange (Dorset).
22nd	2.96 in. at Prestaigh (Radnor), of which roughly 2½ in. fell in 80 minutes, 2.66 in. at Chipping Norton (Oxon.).

Thunderstorms occurred locally rather frequently, mainly from the 1st-7th, 13th-16th and 22nd-25th; they were rather widespread on the 4th-5th.

Sunshine.—The duration of bright sunshine expressed as a percentage of the 1906-35 average was 105 over England and Wales, 110 over Scotland and 121 over Northern Ireland. The excess was greatest in the north-west, the percentages for the districts ranging from 96 in England, N.E. to 121 in Northern Ireland and 123 in England, N.W. and N. Wales. At Southport it was the sunniest September since 1933. The latter part of the month was rather dull in many parts, particularly in eastern and southern districts; this was often due to the prevalence of mist and fog.

Fog.—Fog, chiefly in the early morning and at night, occurred rather frequently for the time of year, mainly on the 1st-4th, 7th, 10th-11th, 14th-16th and 18th-30th. The fog was most considerable from the 23rd-29th.

Miscellaneous Phenomena.—The aurora was observed in Scotland on nine nights. Solar halos were noted at Oxford on six days.