

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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APRIL, 1943.—Warm generally; exceptionally severe gale on the 7th; dry in England and Wales.

The weather was distinguished by unusual warmth: it was dry in England and Wales and excessively wet in the western and north-western Highlands of Scotland. The gales on the 7th and 25th-26th were widespread and severe and caused some loss of life and much structural damage.

During the opening days an anticyclone was centred off our south-west coasts, while a weak trough crossed Britain; there was scattered, slight rain on the 1st and 2nd. Between the 3rd and 5th the anticyclone moved away east and on the 4th and 5th a deep depression moved east-south-east across Iceland. Weather was mainly fair on the 4th, but rain fell generally in Scotland and Ireland and locally in northern England on the 5th. On the 7th an intense depression moved south-east from the Shetlands and a severe westerly to north-westerly gale prevailed over the British Isles. Some sleet or snow was experienced in the northern half of the country between the 5th and 7th. Subsequently the anticyclone off our south-west coasts dominated conditions over most of England until the 18th or 19th, while depressions in the Icelandic regions caused rain at times in the west and north of the British Isles. During the period 13th-17th an unusually warm, sunny spell was enjoyed in England, which lasted over the 18th in southern districts.

Thereafter less settled conditions prevailed over England also. On the 18th a depression south of Iceland moved rapidly east-north-east to the coast of Norway and on the 18th and 19th an associated trough moved south-east across the British Isles; rain occurred, and in the rear of the disturbance polar air brought a considerable fall of temperature. Later, a somewhat feeble anticyclone moved north-east over southern England to Germany and subsequently a shallow depression over the Bay of Biscay moved north-north-east across the British Isles: rain fell generally in England and Wales and locally in south Scotland and north Ireland on the 21st and there were showers or slight rain in many places on the 22nd. On the 23rd a depression north-west of Ireland moved north-east while associated troughs crossed the British Isles, and on the 24th a new Atlantic depression rapidly approached our north-west seaboard and then moved slowly north-east. Rain, heavy at times, was reported, though there were long sunny periods, and widespread and severe gales prevailed on the 25th-26th. A wedge of high pressure moved eastward over the British Isles on the 28th and 29th and was followed by a shallow trough, which was associated with general but not very heavy rainfall.

Pressure and Wind.—Mean pressure exceeded the average except in the north of Scotland, where there was a slight deficiency. The deviation at 7h. ranged from -3.9 mb. at Sumburgh (Shetlands) to $+8.3$ mb. at Plymouth and Scilly. The pressure gradient was thus greatly increased and the month was windier than usual. Winds from between south-west and north-west predominated. The gales of the 5th-7th and 24th-26th were widespread and severe, the gale on the 7th being of exceptional severity. At a number of stations with anemometers the highest gust on record was registered on that day: for example 91 m.p.h. at Eskdalemuir (06.45h), 91 m.p.h. at Spurn Head (11.50h) 88 m.p.h. at South Shields (10.20h) and 86 m.p.h. at Durham (07.00h). Other high speeds recorded in gusts were 91 m.p.h. at Manchester (Ringway) on the 7th, 85 m.p.h. at Lerwick on the 18th and 88 m.p.h. at Bell Rock lighthouse on the 25th. The record gusts mentioned above are the more remarkable because of the time of year. The latest table giving the highest gusts on record at anemometer stations gives no instance of the highest gust occurring in April. The time of day at which they were registered was also unusual, such extreme gusts being very rarely recorded in the forenoon.

Temperature.—Mean temperature was exceptionally high. Over Great Britain as a whole it was probably the warmest April on record. Other unusually warm Aprils were 1893, 1894, 1914 and, particularly in Scotland, 1896. It is interesting to note the difference between the Aprils of 1893 and 1943. In 1893 the pressure distribution was anticyclonic, the range of temperature great and the days notably warm. In 1943 there was a rapid increase in pressure southward over the British Isles, the month was windier than usual and westerly winds predominated and, although some days were very warm, the high mean temperature was largely due to the warm nights. In England the period 15th-18th was exceedingly warm: at Kew Observatory it was the warmest spell of four days in April since comparable records began in 1854. Minima of 30°F . or below were registered from the 5th-8th, 20th-21st and 29th.

The extremes for the month were:—(England and Wales) 79°F . at Cullompton on the 17th, 24°F . at Castleton on the 29th; (Scotland) 66°F . at North Berwick on the 21st, 25°F . at Eskdalemuir and Dalwhinnie on the 29th; (Northern Ireland) 65°F . at Castlerock on the 14th and 31°F . at Garvagh on the 29th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 67 over England and Wales, 134 over Scotland and 111 over Northern Ireland. In Scotland the percentages ranged from 40 at Marchmont in Berwickshire to more than 200 in the Western Highlands and locally in Sutherland. In England and Wales less than half the average occurred over a large area in the south extending north from Dorset to Radnor, locally on the south coast of Devon and Cornwall, over small isolated areas in the Midlands and in the neighbourhood of Tynemouth and Gorleston. More than the average was received over a part of north-west England. In Northern Ireland the percentages ranged from 87 at Omagh to 132 at Garvagh.

The dry weather experienced in the first half of April following the long dry spell of late February and March constituted a prolonged partial drought in some districts of England; for example, at Kew Observatory only 11 mm. were registered from February 16th to April 18th giving a partial drought of 62 days.

Among the heavier daily falls were:—

11th	1.75 in. at Arienskill, Lochailort.
17th	1.74 in. at Glenquoich (Inverness-shire).
18th	1.84 in. at Kinlochquoich (Inverness-shire).
21st	1.56 in. at the Lizard.
24th	2.12 in. at Fofanny Reservoir, Mourne Mountains, and 1.68 in. at Lochearnhead.
25th	3.13 in. at Conaglen, Ardgour, 2.55 in. at Achnacarry, Loch Arkaig, and 2.34 in. at Glencoe.

Thunderstorms were infrequent but were reported locally on the 5th and 30th and were rather more widespread on the 23rd, 25th and 27th.

Snow or sleet was reported between the 5th and 7th and locally in Scotland on six other days.

Sunshine.—Broadly speaking sunshine exceeded the average in England and Wales and east Scotland and was deficient in Northern Ireland and the west and north of Scotland. The percentages of the average for the districts ranged from 77 in Scotland, N. to 117 in the Midlands (See Table I).

Fog.—There was little fog, but it was reported locally at times, mainly on the 4th-5th, 12th-13th, 15th-17th, 22nd and 29th-30th.

Miscellaneous Phenomena.—The aurora was observed at some northern stations in Scotland on eight nights; a display on the 3rd was seen from Montrose and Leuchars. Solar halos were noted at Oxford on 14 days.