

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

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

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

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SUMMARY OF OBSERVATIONS.

General Summary.—Following the exceptionally brilliant weather which the country experienced in March, the atmospheric conditions underwent a complete change, so that the month of April was, for the most part, of an unusually wet, cold and ungenial character, but relieved on numerous occasions by intervals of pleasant brightness. Throughout the first seventeen days the weather may be said to have been wholly under the influence of systems of low barometric pressure. On the opening day of the month the observations received from Iceland indicated the approach of a disturbance from the northern region of the Atlantic towards our western coasts, but, although the entire country was immediately brought within its influence, the minimum of pressure appears to have remained practically stationary out on the ocean for six days. A small disturbance, secondary to this main system, was developed over our south-western districts on the 3rd, but it soon coalesced with a depression which moved from Spain to the Gulf of Genoa, and subsequently passed away across Greece. By the morning of the 7th the pressure minimum of the Atlantic area had been transferred to the north of England, the line of progression then becoming rather erratic, first crossing Scotland to the Hebrides, then down to the Irish Sea region, and to the English Channel by the 9th, finally crossing the Continent to Italy and Turkey. No sooner had this system left the English Channel than another appeared beyond the south-western coasts, and between the 11th and the 15th its lowest pressure was found in the vicinity of the southern or northern coasts of Brittany. A new depression appeared over Scotland on the 16th, and next day it moved away up the Norwegian coast. During these seventeen days, therefore, a very unsettled type of weather ruled, the barometer was about one-third of an inch below the normal level, and the winds were exceedingly variable in direction, often from points between East and North, frequently blowing with the force of a fresh or strong breeze in various localities, but only on rare occasions rising to a fresh gale in one or two places. Rain was of frequent occurrence, and on several days there were falls of hail, sleet, or snow. A small shallow irregularity of pressure which was formed over the south-eastern counties in the night of the 6th-7th brought about, what was for the time of year, a very heavy fall of snow in the district, the country presenting a very wintry aspect on the morning of the 7th. At Parkstone, Dorset, the snow was from 1½ in. to 2 ins. deep, and at Warlingham, Surrey (600 feet above M. S. L.), it was 6 ins. deep, some of it remaining on the ground on the following day. This disturbed period was also marked by thunderstorms, or thunder or lightning alone, on nearly every day in some part or other of the kingdom.

The most remarkable of the thunderstorms occurred on the 9th, in the immediate vicinity of Bidston Observatory, on the Cheshire side of the Mersey, where the disruptive effects of a violent discharge of lightning were of an interesting character. Two holes were made in the hedge, one 18 ins. in diameter and 20 ins. deep, perfectly circular from the surface to the full depth, the debris having been strewn over about three-quarters of the width of the road, as though it had been swept with a swift whirling machine, and the road itself was ploughed and furrowed at varying distances and widths for a distance of 18 feet. The other hole was 6 ins. in diameter, but was oblique, and vanished on the inner side of the hedge. Fence poles were splintered like match stems, barbed wire twisted and distorted in all shapes, and the gorse set on fire up to half a mile distance. Several men were thrown to the ground by the violence of the explosion, but there was no loss of life.

A captive balloon, attached by a steel piano wire, was sent up at Aldershot on the 11th. At 3.20 p.m., with about half a mile of wire out, a flash of lightning struck the wire and fused it all the way down. Thick, heavy fumes of brownish-yellow smoke, which hung about for some time, were observed after the event. During a thunderstorm at Ridlington, Rutland, early in the afternoon of the 17th, black darkness prevailed, the sky when clearing being of a sulphur colour, and the rain water black. (A fall of black rain also occurred at Loughor, South Wales, earlier in the month.)

Several observers comment on the heavy or violent falls of hail accompanying some of these thunderstorms. At Great Billing, Northamptonshire, there was a great thunderstorm on the evening of the 7th, with a heavy fall of soft hail, which, in drifts, was from four to five inches deep. The fogs experienced during this unsettled period were fairly frequent on the east coast (Scotland and England) as well as on the south and west coasts.

After the 17th the distribution of pressure was modified to a considerable extent, becoming for the most part anticyclonic, the central space of the system, however, being found, as a rule, beyond our western or south-western coasts, and occasionally on the Continent. This admitted of our weather being still affected to some extent by low pressure areas visiting the Iceland, Scandinavian, and North Sea regions, the general type of conditions being thus in a large measure westerly to northerly. The weather was of a very changeable character, not so unsettled as the first period, but occasional falls of rain, hail, sleet and snow occurred. From time to time a high wind was felt locally on our coasts, but it was seldom that the force exceeded that of a fresh breeze. Temperature underwent large fluctuations. For example, on the 24th the maximum readings in various parts of England were as high as 70° to 74°, but two days later the afternoon values were below 50° in many localities, not exceeding 44° or 43° even at some of the stations on the south coast. Although thunderstorms were again reported on some days in different parts of the country, they presented no features of unusual interest. On several days various sections of the western and south-western coasts were enveloped in fog. The anemometrical records do not disclose a single instance of the wind attaining a velocity of 50 miles (a strong gale) in any one hour during the month, but at 11.5 a.m. on the 6th, at Pendennis Castle, there was a violent squall whose maximum velocity was at the rate of 68 miles per hour.

For the month as a whole pressure was deficient; temperature was somewhat lower than usual in most parts of the country; the winds varied greatly in direction, and were not of much strength; rainfall was deficient in some northern districts, greatly in excess in the south; and except in a few instances, the duration of bright sunshine did not differ much from the normal.

Pressure.—Mean at 8 a.m. ranged from 29.81 ins. at Jersey to 29.71 ins. on the north-western coasts. There was thus a difference of only 0.1 in. between the extreme results, which is in accordance with the normal for the season. The actual values, however, were in all cases below the average, the deficiency amounting to 0.08 in. at Valencia, and 0.14 in. at Yarmouth. Highest readings were registered on the 11th, when 30.24 ins. was reached at Sumburgh Head, and between the 22nd and 25th, when at various western and south-western stations the mercury rose to 30.4 ins. and upwards, to 30.51 ins. at Jersey on the 23rd. Lowest values were observed during the first week, 28.97 ins. at Blacksod Point on the 2nd, 29.08 ins. at Portland Bill on the 3rd., below 29 ins. in the north of Scotland during the night of the 5th-6th; 28.93 ins. at Stornoway, and 29.08 ins. at Shields on the morning of the 7th. Range was moderate, from an inch at stations on the east coast of England to 1.4 in. in the west and north of Ireland.

Depressions.—With most of the disturbances which came within the region under observation, the pressure minimum was at a considerable distance from the British Isles, about Iceland, Scandinavia and southern Europe. The few that approached our coasts or visited the land were, in nearly every case, slow-moving, following erratic paths, and remaining in our neighbourhood some days, one of them dominating the weather during the first nine days. As a general rule, however, the systems were of no great depth, only two of them having barometer readings slightly below 29 ins.

Anticyclones.—On the evening of the 25th, Ireland was under the central space of the only area of high pressure which visited these Islands during April. The others were either far to the northward, the westward, or south-westward, or on the Continent. When the highest barometer reading for the month was reached at Jersey on the 23rd, the region of maximum pressure was on the Bay of Biscay.

Winds.—As pressure during the first half of the month was lowest over and to the west and south of the country, and during the second half highest over the same region, the winds were about equally distributed round the compass. The force of a gale was reached at Deerness on 7 days, and at Wick, Laudale, Aspatria, and Guernsey on 3 days.

Temperature.—Mean at sea level ranged from 49° at Jersey, and rather above 48° at a few other southern stations to below 44° in the north-east of Scotland, less than 42° at Sumburgh Head. The general distribution was much about the same as the normal. In most parts of the Kingdom the actual values were below the average, while in the north and east of Scotland, and the north-east and east of England, many stations showed an excess. As a rule, however, the difference from the average either way was small, less than 1°, there were few instances of more than 1°-5. Highest readings occurred mainly on the 2nd in Scotland, 65° at Leith and Strathpeffer, and 66° at Nairn; on the 23rd in Ireland, 67° at Dublin (City), and 68° at Waterford; and on the 24th in England, 73° at Cambridge, and 74° at Maidenhead. Lowest values were recorded mostly on the 4th, 5th, or 18th