

FOR OFFICIAL USE.
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 OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

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SUMMARY OF OBSERVATIONS

Pressure, Winds and Weather.—The month now under notice may be divided into two periods of almost equal duration, in which the distribution of atmospheric pressure was totally different. During the second half of March anticyclones ruled in the neighbourhood of the Arctic Circle, while disturbances remained nearly stationary for days out at sea beyond our south-western coasts and on the Bay of Biscay. On the morning of April 1st a general southward transference of both types was observed to be in progress, the low pressure system eventually passing down to Madeira, and the high pressure becoming established over the British Isles. A steady rise of the barometer took place, and by the 5th the anticyclone had attained its greatest intensity, pressure exceeding 30.5 in. at the northern and north-western stations, reaching 30.62 in. at Nairn, and 30.63 in. at Stornoway, the highest readings in these islands during the month, but on the evening of the 8th 30.71 in. was reported out at sea a short distance from the north-west of Ireland. With the barometer at about 30.4 in. to 30.5 in., the anticyclone maintained its position over the country for nearly a fortnight, without undergoing much change of position or shape. From the reports of the morning of the 14th it was evident that a rapid change in the situation was setting in. The area of high pressure was passing southward towards the Bay of Biscay and the Spanish Peninsula, the barometer was giving way briskly over all the northern regions, and thenceforward, until the close of the month, the weather over these islands was affected mainly by a series of cyclonic disturbances from the Atlantic, advancing upon our western coast or passing eastward beyond the north of Scotland. As a general rule these disturbances were of no great depth, pressure diminishing to a little below 29.5 in. at the centres of some of them. One, however, proved unusually deep for the time of year the barometer falling below 29 in. when the centre was nearing the Irish coast on the evening of the 18th. Next morning the pressure minimum was over Ireland, 28.72 in. at Blacksod Point, and 28.73 in. at Birr Castle, the lowest values for the month. The system then altered its course to the northward, accelerated its movement, and disappeared to the north-eastward of Iceland on the 21st. In a secondary depression which formed over eastern Scotland on the morning of the 29th, the lowest barometer reading was 29.15 in. at Nairn. On the 21st there was a temporary northward expansion of the anticyclone from south-western Europe to the southern half of the United Kingdom, the barometer mounting above 30.5 in. along the south coast of England, and touching 30.6 in. at Jersey. For the entire month, therefore, the range of pressure was rather large, being more than an inch at Oxford and in London, exceeding 1½ in. at Birr Castle and Malin Head, and amounting to 1.9 in. at Blacksod Point. The distribution of mean pressure was somewhat irregular, the lowest values being up the Norwegian coast, below 29.7 in. at Bodø, beyond the Arctic Circle. The highest results were in France and the Azores, up to nearly 30.1 in., and to the northward of Iceland, about 30 in. At the home stations the values were from 30.06 in. at Jersey to 29.86 in. at Sumburgh Head. This Shetland value was practically equal to the average, all other stations being above the average, the excess increasing southward from 0.04 in. at Wick to 0.13 in. at Roche's Point and Jersey, and 0.14 in. at Scilly. The mean gradient was consequently considerably steeper than usual, 0.20 in., against 0.08 in., between Shetland and the Channel Islands. Owing to the month having been divided nearly equally between anticyclonic and cyclonic types the winds varied greatly in direction, the South-East quarter being the least frequented.

Taken as a whole, the month was of a very breezy character, even during the existence of the anticyclonic system over us, winds exceeding the force of a strong breeze being reported on all but five days. A well-marked disturbance in the Italian region in the early part of the month spread northward, and occasioned a decided increase in the pressure gradient over our southern and eastern districts between the 5th and the 7th, high North-Easterly winds resulting. On the 5th a gale was felt at Yarmouth, a strong gale (force 9) at Dover; and next day the gale was general over the southern half of England, a strong gale at Dungeness and Scilly. Gusts at the rate of 63 miles per hour were experienced at Gorleston on the 3rd, and 59 miles an hour at Shoeburyness on the 5th. These boisterous conditions were accompanied by daily falls of snow over a wide area, a depth of from 3 in. to 4 in. in a day being measured by several observers. The most remarkable feature of the period was the unprecedented cold during the daytime. More striking were the low afternoon maxima on the 5th, numerous stations in England, mainly in the south, failing to rise above 35°, Southend touching 32°, Matfield (Kent) 31°, and Sandown 30°. At noon the Hampstead reading was 28°; at Westminster, 3 p.m., 32°; and at Matfield, 3.20 p.m., 26°. At Totland Bay, Isle of Wight, the lowest April maximum in the previous twenty-six years had been 43°, but on the 5th of the present month it was

only 34.6°; next day it touched 38°, and on the 7th 42°. In Scotland the maxima were generally 40° and upwards. Frost was general, many night shade temperatures descending to 25° and under, to 23° at Armagh, Birr Castle and Poltalloch; 22° at Wokingham, Hampstead, Cromer, Llangam-march Wells, and Markree Castle; 21° at Balmoral, Kingussie and Sheepstor; 20° at Colmonell and Thorntonhall, and 17° at West Linton.

Between the 10th and the 13th a depression near Madeira expanded northward across the Peninsula, again steepening the gradient and causing high North-Easterly winds across southern England.

Thereafter Southerly to Westerly or North-Westerly winds prevailed ~~ascendant~~, under the influence of the various low pressure systems, but although these produced a very windy period, the only gale worthy of mention was that associated with the deep depression which moved up our western districts between the 18th and 20th. Out on the Atlantic ships had experienced a strong to whole Northerly and North-Westerly gale on the 17th and 18th, and as the centre approached Ireland on the latter date a Southerly gale sprang up on our western and south-western coasts, a whole gale (force 10) at Roche's Point, the anemometer at Pendennis Castle registering a velocity of 52 miles in an hour, while in gusts, velocities were recorded at the rate of 64 miles per hour at Plymouth, 66 miles at Roche's Point, 67 miles at Llaneu-grad, and 68 miles at Pendennis. Next day the Southerly gale was maintained in many places, a strong gale at Holyhead and Nottingham, a whole gale at Scilly, with anemometrical records in gusts of 67 miles per hour at Holyhead, and 70 miles at Llaneu-grad. As the centre moved northward, the wind veered to the West on the 20th, blowing a strong gale at Scilly, a whole gale at Malin Head.

Occasionally during the second half of the month fairly high temperatures were registered in various districts, above 65° in places, 67° on the 14th or 15th at Westminster, Camden Square and Wilton (Salisbury), 68° on the 13th at Killarney, and on the 22nd at Camden Square, Cromer and Geldeston, and 69° at Hull on the 21st, and at Cambridge and Norwich on the 22nd, many of the morning minima on the latter day being 51° or 52°, and on the morning of the 23rd as high as 54° at Kingstown.

A notable characteristic of the month was the almost entire absence of heavy rainstorms, even during the more unsettled period, few instances of more than an inch in a day being registered, 1.5 in. at Gruline (Mull) on the 17th, and at Bethesda on the 19th; 1.8 in. at Loch Torridon on the 21st; and 2.2 in. at Seathwaite on the 25th. On the other hand, rainless spells of 14 or more consecutive days were experienced at a very large number of stations. In the north-west the drought which set in about the middle of March continued in places till the middle of April, 30 rainless days at Gruline, and 29 at Graythwaite. Further south the dry weather was within the first twenty-four days of April, 18 days at Oundle and Send (Surrey), 19 at Brandon, and 20 at Beaconsfield.

The thunderstorms of the month were few and unimportant, and aurora was seen on the 8th at Stornoway only.

Fog was rather prevalent on the western and southern coasts on the 1st and 2nd, and from the 13th to the 28th; but up the east coast it was an occasional visitor at one or two places.

On nearly every section of our coasts the temperature of the sea water was higher than in March, by 3° off the west and north-west of Ireland, 4° at the Orkneys. The water was colder than the air on the east coast of Britain and western channels, as much as 5° colder on the Firth of Cromarty. In other localities the water was warmer than the air, by 3° off Shetland, 4° on the Kerry coast.

Rainfall.—There was a considerable excess of precipitation in the north and west of Scotland, and a fairly large deficiency over the eastern half of England, but elsewhere it differed little from the normal. Fort William had an excess of 2.7 in. (172 % of the average), and Whitby a deficiency of 1.3 in. (20 %). Totals exceeding 6 in. were not numerous, the only ones exceeding 9 in. being 12.7 in. at Seathwaite, and 17.5 in. at Glenquoich, Loan. Many stations received less than an inch in all, 0.5 in. at Ruthin, St. Asaph and Shrewsbury, 0.4 in. (30 %) at Hawarden Bridge, and 0.3 in. (20 %) at Whitby. The frequency ranged from 29 days at Baltasound, and 24 at Stornoway and Wick to 10 or less in many places, 8 at Beaconsfield, and 7 at Brandon and Dursley.

Bright Sunshine.—Over the greater part of the kingdom there was a marked lack of sunshine, the deficiency exceeding 30 hours in several instances, 46 hours at Newton Rigg, 47 (31 % of the average) at Strathpeffer, and 50 (31 %) at Stornoway, while London did well, Westminster showing an excess of 31 hours (28 %). The aggregate totals ranged from 202 hours at Felix-stowe, 201 at Guernsey (104 %), and 200 at Jersey (106 %), to 90 hours at West Linton, and 88 at Eskdalemuir, and 71 hours (61 %) at Fort Augustus.