

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.—As the distribution of atmospheric pressure during the period under review was of a decidedly anticyclonic type, and disturbances possessed of much wind energy were unusually rare, the weather experienced was generally of a quiet character. Some of the Arctic disturbances of the first half of the month, on their passage eastward, occasioned strong or high South-Westerly to North-Westerly winds on the more exposed sections of our coasts; there were few instances of stronger winds, but in the night of the 4th, Stornoway felt a strong South-Westerly gale, and on the 10th Roche's Point a strong North-Westerly gale. The only boisterous weather over a considerable portion of the country occurred between the 16th and the 19th. On the morning of the 16th, a falling barometer with fresh to high Southerly winds over the southern half of the kingdom afforded indications of the approach of a disturbance towards Ireland. By evening the minimum of pressure was over central Ireland. At Valencia the lowest barometer reading, 28·87 ins., was registered at 4.40 p.m., when a very rapid rise set in, and at 6 p.m. the reading was 29·18 ins., an ascent of 0·31 in. in 80 minutes, of which 0·1 in. occurred in the first 20 minutes. During the night the system passed quickly, 36 miles per hour, north-eastward, and on the morning of the 17th the minimum of pressure was beyond Shetland. The South-Westerly to Westerly wind of the system attained the force of a fresh gale in several neighbourhoods in Ireland and England, a strong gale at Donaghadee and Liverpool, and a whole gale at Roche's Point. Very heavy rain fell in the districts in the immediate vicinity of the central line of progression, from 1 in. to 1·8 in. in places. There was thus a combination of very low atmospheric pressure, high winds and heavy rains at the time of the equinoctial spring tides, and the result was considerable damage from high tides and floods in Morecambe Bay and on other portions of the Irish Sea coasts.

The observations of the evening of the 17th showed another deep depression to be situated beyond our north-western coasts, and next morning the minimum of pressure was over the Moray Firth, the barometer having fallen below 29 ins. all over Scotland and in the north of Ireland. Following a due easterly course the disturbance passed on to central Russia, but a secondary which developed beyond the north of Scotland on the evening of the 18th went north-eastward along the Norwegian coast. These two systems occasioned very windy weather over the country generally during the 18th and 19th, many places reporting fresh South-Westerly to Westerly gales, Roche's Point a strong gale, and Donaghadee and Malin Head a whole gale. The anemometrical records show that only in the night of the 16th did the wind attain a velocity of 50 or more miles in an hour—Kingstown, 1 hour, 51 miles; Fleetwood, 3 hours, extreme 56 miles; Southport, 3 hours, extreme 60 miles, with gusts at the rate of 81 miles per hour; Pendennis Castle, 3 hours, extreme 55 miles. Holyhead had a gust with a velocity of 76 miles per hour. On the 18th and 19th gusts of 64 miles and 63 miles per hour were registered at Southport. This ended the unsettled portion of the month, during which rain was of frequent occurrence in nearly all districts, with hail, sleet or snow at times, but although there were some heavy falls, mainly about the 10th and 16th, the aggregate amounts for the first three weeks were in excess of the normal only in Scotland, the north-west of England and the north of Ireland; the Channel Islands received less than half the average quantity. During the remainder of the month a few light showers fell in Ireland and the north of Scotland. Over the rest of the kingdom there was, with only a few unimportant exceptions, no rain after the 19th, at several stations none after the 18th or 17th, while the last fall at Reading and Kearsney, near Dover, was on the 16th. This rainless and sunny period lasted in most localities until April 2nd. The small rainfall over southern Ireland, referred to in the February Summary, is still maintained, the deficiency for three months, January to March, amounting to 7·5 ins. at Waterford and Roche's Point, and 8·2 ins. at Killarney.

Fogs were unusually prevalent for the season, more especially in the opening days and from the 25th to the 28th. As a rule they were early morning fogs, but occasionally they lasted nearly all day in London and some of the large towns. Dense fog along the Channel caused the wreck of the White Star s.s. "Suevic," and other steamers in the night of the 17th.

Thunderstorms were experienced in one or more places on the 10th, 13th, 14th, 17th, 18th, 19th and 20th; lightning alone on the 2nd and 8th; thunder alone on the 31st.

For the month as a whole, pressure, temperature and bright sunshine were in excess of the normal; rainfall was in excess in the north and north-west, in defect elsewhere; and the winds were mostly Southerly to Westerly or North-Westerly.

Pressure.—Mean at 8 a.m. ranged from 30·27 ins. at Jersey to 29·76 ins. at Sumburgh Head. The general distribution differed but slightly from the normal, the gradient being a little steeper, but the values were in all cases well above the average, by 0·05 in. in Shetland, and more than 0·1 in. everywhere else, 0·32 in. at Scilly and Jersey. Highest readings occurred on the 1st, 30·51 ins. at Clacton-on-Sea, 12th, 30·54 ins. at Bath and Oxford; 21st, 30·56 ins. at Jersey, 22nd, 30·51 ins. at Roche's Point, and on the 27th, again 30·54 ins. at Oxford. Lowest values were recorded on the 16th, 28·74 ins. at Donaghadee, and on the 18th, 28·76 ins. at Malin Head. There were few other depressions with the barometer below 29·5 ins. Range was from 0·8 in. at Jersey to 1·8 in. at Donaghadee.

Depressions.—On the 9th and 10th a shallow rain and snow disturbance visited the north-western and northern districts; on the 16th a deep one reached Ireland and passed rapidly to Scotland and the Norwegian coast; and on the 18th an equally deep one moved eastward across Scotland and the North Sea. The other depressions of the month were further north, mostly about or beyond the Arctic Circle.

Anticyclones.—Although the conditions were mainly anticyclonic the region of highest pressure was almost invariably situated between the north of Spain and the central parts of the Continent.

Winds.—Over the country generally the winds were largely from between South, West and North-West, but on the English Channel there was a considerable proportion from between South-East and North-East. Gale force was reported on 7 days at Dublin (Phoenix Park), on 6 days at Aspatia, Durham and Laudale.

Temperature.—Mean at sea level ranged from 49° at Killarney to 40° at Sumburgh Head. The general distribution differed from the normal in local details, the actual shade values being, almost without an exception, above the average, by more than 3° in places, 4° at Scarborough. Highest readings were observed in the closing days; in England, 73° at Whitby (26th), 72° at Maidenhead (30th); in Scotland, 66° at Lairg (26th), Nairn, Leith and Marchmont (29th); and in Ireland, 65° at Killarney (27th). Lowest values occurred mainly on the 12th over Britain, on very irregular dates in Ireland, 10° at Balmoral, 17° at Wokingham, 18° at Crathes, Cirencester (12th) and Lairg (11th). Range was large, exceeding 40° in numerous cases, 49° at Balmoral, 51° at Wokingham, but at Pembroke it was 18°, and at Scilly 15°. Vapour Pressure ranged from 0·195 in. at Oxford (8 a.m.) to 0·310 in. at Roche's Point (6 p.m.). Relative Humidity ranged from 70 per cent. at Jersey (6 p.m.) to 97 per cent. at Roche's Point (8 a.m.). Nocturnal Radiation Temperature (on grass) was very frequently below 30°, on more than 20 nights in several localities, 27° at Coventry. The lowest records were 5° at Balmoral (12th), and between 12° and 15° in various parts of England (5th and 12th). Mean Earth Temperature at 1 ft. depth ranged from 38·2° at Crathes to 45·7° at Guernsey; and at 4 ft. depth from 38·1° at Crathes to 45·6° at Guernsey.

Rainfall.—Precipitation in various forms exceeded the average in most parts of Scotland, northern Ireland and the north-west of England, by more than 2 ins. locally, 3·8 ins. at Glencarron. Elsewhere there was a deficiency which ranged upwards to 1·9 in. at Waterford. The largest aggregates were 11·7 ins. at Glencarron, and 8·2 ins. at Fort William; the smallest, 0·5 in. at Whitby and Ventnor, and 0·3 in. at Portsmouth. More than an inch fell at a number of western and northern stations on the 16th, and locally on the 4th, 7th, 9th, 10th, 14th, 17th and 19th. The days on which precipitation was measured numbered 27 at Stornoway and Glencarron, and 26 at Roche's Point, but only 8 at Southend-on-Sea, Portland Bill and Guernsey (Villa Carey).

Bright Sunshine.—With the sole exception of Valencia all stations had more sunshine than the average, the excess generally being very large, up to 112 hours at Tunbridge Wells, the total record at some stations being 60 per cent. or more of the possible duration, Hastings, Tunbridge Wells and Lowestoft returning 234 hours, or 64 per cent. of the possible. The smallest aggregate was 100 hours at Fort Augustus, an excess of 22 hours. The morning cloudiness (overcast sky = 10) ranged from 3·7 at Whitby to 8·6 at Prestwich; and the evening cloudiness from 2·3 at Cambridge to 8·3 at Stornoway. Fog occurred on 11 days at Greenwich, 12 at Kew, and 13 at Belvoir Castle, Southampton, and Dublin (Trinity College).