

# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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## OCTOBER, 1929. Wet and windy with considerable bright periods.

The weather during October was unsettled and windy with frequent rain, heavy falls occurring during the first eight days and on the 24th. For the first time since November, 1928, all districts except eastern coastal areas received at least a normal rainfall. Mean temperatures were generally within 1° F. of the normal. Bright periods occurred frequently and except in the north of Scotland sunshine aggregates for the month exceeded the normal.

The unsettled weather which had set in at the end of September, continued during the first nine days of October; rain was general on the 1st and 2nd and was heavy in the north and west while gales were reported from various parts of the coast on the 2nd and 3rd. A renewal of strong winds with widespread rain occurred on the 5th, and during the night of the 5th to 6th, the rain being exceptionally heavy in the south-west of England where more than 50 mm. were recorded in several places. A further general fall gave more than 25 mm. with a southerly gale in the south-west on the night of the 7th to 8th. Thunder occurred locally on a few days while sunshine records were sometimes good, notably on the 1st, 2nd, 7th and 9th.

The unsettled weather was broken on the 9th by a ridge of high pressure which passed across the country and thereafter an anticyclone, drifting slowly eastwards from the Bay of Biscay, gave fairer weather in most districts. Very mild weather prevailed generally, maximum temperatures of 60° F. and over occurring widely during the period 11th to the 17th; 65° F. was reached at Logie Coldstone on the 14th and 67° F. at South Farnborough and Shoeburyness on the 16th. By the 18th, temperature had reached a more seasonable level and on the mornings of the 18th and 19th the first severe ground frosts of the season were recorded in several districts. On the 20th a deep depression centred near the Shetlands moved south-eastwards giving general rain and strong winds or gales along our western coasts. At Scilly the wind reached 72 mi/hr. in a gust. Associated with a secondary disturbance generally heavy rain occurred on the 24th with gales in southern and eastern England, the wind at Scilly reaching a velocity of 77 mi/hr. in a gust on the morning of the 24th. Cold brighter weather followed with frequent hail showers at first and some thunder. Low temperatures in the screen and on the grass were recorded on the mornings of the 25th, 26th, 27th and 28th.

After a warmer rainy interval on the 28th and 29th, pressure rose steadily and mainly fine weather, apart from some local rain on the east and south-east coast, ensued to the end of the month, with some ground frost inland.

**Pressure and Winds.**—Except for anticyclonic conditions which extended over the southern districts of the British Isles from the 12th to the 15th, weather of a cyclonic type prevailed during the greater part of the month and in all districts monthly means of atmospheric pressure were decidedly below the normal, the deficit amounting to 11 mb. at Lerwick and to 1 mb. at St. Mary's Scilly. The isobars of monthly mean pressure trended roughly from west to east and winds were mostly from between south-west and north-west. Strong winds or gales occurred frequently, particularly during the first eleven days, and on the 20th, 21st, 23rd and 24th. Gales occurred over England and Wales about the 6th, in a few southern districts on the 20th and 21st and in many parts of Great Britain on the 23rd or 24th. In Scotland gales occurred over a wide area on the 2nd, 3rd and 10th. Wind velocities exceeding 70 mi/hr. in a gust were recorded at Tiree on the 2nd, at Pendennis Castle on the 5th, at Liverpool (Bidston) on the 6th, at Lerwick on the 10th, at Calshot on the 23rd and at St. Mary's (Scilly) on the 24th. The highest recorded wind velocity in a gust was 78 mi/hr. at Lerwick on the 10th, closely approached by 77 mi/hr. at Pendennis Castle on the 5th and at St. Mary's (Scilly) on the 24th. The wind velocity of 74 mi/hr. recorded at Calshot on the 23rd is the highest wind velocity recorded there since the records were commenced in 1920.

**Temperature.**—During the first half of October maximum temperatures were about or above the normal, the mildest spell occurring between the 12th and 16th when the temperature approached or exceeded 65° F.; 66° F. was recorded at Ross-on-Wye on the 11th and 12th and at Aberdeen on the 14th and 67° F. at South Farnborough and Shoeburyness on the 16th. The nights too were frequently mild during this period. The second half of the month was, on the whole, less mild and during the last week the nights were mostly cold, minimum temperatures in the screen about or below freezing point being recorded in several northern districts on the mornings of the 26th, 27th, 28th and 31st. Monthly mean temperatures were generally within 1° F. of the normal, being somewhat below the normal in Scotland and above the normal in most parts of England and Wales and Ireland. Ground frosts were common and were severe in many districts on the mornings of the 18th, 19th, 25th, 26th, 27th, 28th and 31st. Amongst the lowest readings recorded by the grass minimum thermometer were 12° F. at Arbroath on the morning of the 26th and 13° F. at Birr and 15° F. at Renfrew and Eskdalemuir on the morning of the 27th.

The extreme temperatures for the month were:—(England and Wales): 68° F. at Birmingham (Sparkhill) on the 12th and at London (Camden Square) on the 16th and 22° F. at Worcester (Perdiswell) on the 22nd; (Scotland) 65° F. at Logie Coldstone on the 14th and 21° F. at Braemar on the 31st; (Ireland) 68° F. at Kilkenny on the 14th and 23° F. at Markree Castle on the 27th.

**Precipitation.**—October, 1929, was wet and although a slight excess was recorded over the British Isles as a whole in May and August the present month is the first since November, 1928, in which there has been a substantial excess. The general precipitation for the British Isles expressed as a percentage of the normal for the period 1881–1915 was 128: the values for the constituent countries were:—England and Wales, 120; Scotland, 144; Ireland, 127. Precipitation was particularly heavy during the first eight days and in many districts the total rainfall for the first week exceeded three times the normal, the general precipitation amounting to 366 per cent. of the normal over the Midland counties, and to 341 per cent. over England, S.W., and South Wales.

Over England and Wales rainfall totals exceeded the normal, except in the north-east where there was an appreciable deficiency and in parts of the south-east where the deficiency was slight; in western districts there was a substantial excess, monthly totals exceeding one and a half times the normal in many places in the north-west and extreme south-west of England and locally in western Wales. Unusually heavy rain fell in the south-west of England on the 5th and during the night of the 5th to 6th; amongst the largest falls on the 5th were 112 mm. at Princetown, 97 mm. at Holne (Devon) and 90 mm. at Wheddon Cross (Somerset). At Ross-on-Wye the fall on the 5th, 63 mm., was the heaviest day's rain there since December 30th, 1900. Heavy falls were again recorded on the night of the 7th to 8th and on the 24th.

The rainfall over most of Scotland exceeded the normal; the areas with a deficiency of rainfall were confined chiefly to the Dee Valley and to the south-eastern counties. At Lerwick there was more than 200 per cent. of the normal and at Logie Coldstone and Wolfelee under 80 per cent. A prominent feature was the number of days with heavy local falls. Over 25 mm. rain fell on three different days at Ardtornish, Glenorchy Manse, Kinlochmoidart, Mallaig Manse, Loch Carron, Loch More and Bendamph; on four at Forest Lodge, Ardgour, Glenhurich Forest, Port McDonnell, Achnacarry and Dalnaspidal; on six at Forsinard; on seven at Glendessary and Ratagan and on eight at Glenquoich. Over 50 mm. of rain fell at Loch More, Bendamph, Ardgour, Glenhurich Forest, Forsinard, Glendessary and Ratagan on one of these days; at Achnacarry on two and at Glenquoich on four, the largest individual fall reported being 76 mm. from Glenquoich on the 13th.

In Ireland rainfall totals exceeded the normal except in the east and south-east where there was a moderate deficiency. The rainfall was generally heavier in the north than in the south of the country and at Armagh the month's total slightly exceeded twice the normal.

Hail was of frequent occurrence during the month, most districts, particularly northern districts, reporting the phenomenon; hail occurred on 12 days at West Kirby and eight days at Malin Head. Sleet or snow occurred on one or two days at a few places in Scotland and the north of England. Thunder occurred in many districts on several days; at Cargen there were five days with thunder.

**Sunshine.**—Although the month was on the whole wet and windy there were considerable bright periods, monthly aggregates exceeding the normal except in the north of Scotland and Channel Islands where there was a deficiency. Representative totals for District, expressed as a percentage of the normal for the period 1881–1915, ranged from 124 per cent. in England N.E. to 85 per cent. in Scotland N. Much sunshine was recorded in northern districts during the first 11 days of the month and in the central and south-eastern district of England during the second half of the month. In all districts considerable bright periods were experienced during the last week of the month.

Good records were obtained in northern districts during the first week and in several districts on the 7th, 9th, 21st, 26th and 27th. Amongst the largest daily amounts recorded were 9 hr. at Cranwell on the 7th, 9·6 hr. at Lympne and 9·5 hr. at Leafield and Calshot on the 21st and 9·5 hr. at Calshot and 9·3 hr. at Ross-on-Wye on the 27th.

**Fog.**—Fog occurred locally on the 4th, 5th, 14th, 15th, 19th, about the 22nd and during the last five days of the month.

**Miscellaneous Phenomena.**—Aurora was observed in Scotland over a wide area on the 7th and 8th when it was visible as far south as Dumfriesshire; it was observed less extensively in Scotland on the 9th, 17th, 23rd to 25th, 27th, 30th and 31st. At Oxford a solar halo was observed on the 6th, 7th, 8th, 10th and 25th with a parhelion on the 6th and 25th. A lunar pillar was observed at Stonyhurst on the 9th.