

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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Annual Summary and Introduc-
tion, 10s. post free.**FEBRUARY, 1928: First half wet and unsettled with severe gales 10th—11th; then mainly sunny and relatively dry.**

The first half of February, 1928, was very unsettled and mild with frequent precipitation, and notably severe gales on the 10th to 11th; the second half of the month was relatively dry and sunny with frost on several nights and much fog.

Unsettled weather with strong winds and bright periods, frequent rain and, in northern districts, showers of hail and sleet prevailed during the first three days of February. Snow lying was reported from a few places, especially in Scotland where measurements were recorded of 6 to 7½ in. at West Linton and 2 to 3½ in. at Balmoral on the 2nd, 3rd and 4th, and 2½ in. at Edinburgh on the 3rd. Strong winds on the 1st and 2nd attained gale force in several districts, and at Lerwick on the afternoon of the 1st the wind attained a mean hourly velocity of 55 m.p.h. and in a gust reached 77 m.p.h.

On the 4th relatively warm air from southerly latitudes spread over the British Isles and temperature rose rapidly, maximum temperature on the 4th reaching or exceeding 50° F. in most districts; at Dublin (City) the maximum temperature on the 4th was 11° F. higher than the maximum temperature on the previous day, while at Nairn the corresponding increase amounted to 10° F. From the 4th until the 16th the passage of depressions and associated secondaries across or in the neighbourhood of the British Isles maintained unsettled weather with strong winds between south-west and north-west which often attained gale force, changeable temperature and frequent showers. The stormiest weather of the month occurred on the 10th and 11th and was associated with the passage of a deep depression across the British Isles to the North Sea. During the afternoon of the 10th a line squall passed over England, its passage being accompanied locally by a sharp fall in temperature amounting to about 10° F. in many places, with hail, sleet or snow and in several places thunderstorms. In the evening a secondary depression developed off the north-west of Ireland, and with the parent depression moved eastwards causing strong gales over the greater part of the country (*see* Section on Pressure and Winds).

After the 17th an anticyclone centred over Northern Spain spread northwards over the British Isles and the weather became quiet and mainly fine with winds between south and east. The diurnal range of temperature varied considerably, day temperatures being above the normal for the time of year while frost occurred at night. Much fog developed locally. During this period little or no rain was experienced generally, the only rainfall of importance falling during the night of the 28th to 29th and on the 29th when unsettled weather was renewed again in the western districts.

Pressure and Winds.—The tracks of the main depression lay between Iceland and the north of Scotland. Monthly means of pressure were below the normal in the north of Scotland, about normal in the north of Ireland and elsewhere above the normal. The prevailing winds were south-westerly; a notable feature was the paucity of northerly winds. During the unsettled weather which prevailed during the first 17 days of the month strong winds, often reaching gale force, occurred frequently, particularly during the second week and early part of the third week. During a south-westerly gale on the night of the 6th to 7th the wind at Dunfanaghy (Donegal) attained a mean hourly velocity of 54 m.p.h. and in a gust reached 91 m.p.h. During the gale on the night of the 10th to the 11th mean velocities between 50 m.p.h. and 60 m.p.h. were recorded at many well-exposed stations in England and Wales; at Southport the wind at midnight on the 10th attained a mean hourly velocity of 60 m.p.h. and in a gust a velocity of 84 m.p.h. At Holyhead the wind in a gust reached near midnight on the 10th a velocity of 86 m.p.h. The observer at Bidston Observatory (Liverpool) reports that about midnight on the 10th a maximum wind velocity in a gust of 104 m.p.h. was recorded by an Osler swinging plate anemometer.

Temperature.—February, 1928, was mild, the mean temperature being appreciably above the normal, as in the previous month, in all districts. Maximum temperatures on most days were above the normal the highest readings occurring on various dates, mostly about the middle of the month and during the last week of the month. Unusually mild nights occurred during the first half of the month notably on the nights of the 7th to 8th, 8th to 9th and 15th to 16th when screen minimum temperatures in the neighbourhood of 50° F. were recorded. Low temperatures in the screen and ground frost occurred early in the month and frequently after the 16th; the coldest nights occurred generally at the beginning of the month, about the 22nd and from the 25th to the 28th.

The extreme temperatures for the month were:—(England and Wales) 60° F. at Colwyn Bay on the 15th, 22° F. at Castleton on the 26th and 28th and at Durham on the 28th. (Scotland) 59° F. at Inverness on the 9th, at Gordon Castle on the 21st and at Turnberry on the 24th, 17° F. at Braemar on the 23rd. (Ireland) 61° F. at Killarney on the 15th, 29° F. at Mallaranny on the 11th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the normal was 120; the values for the constituent countries were England and Wales 119, Scotland 115, Ireland 128. Most of the month's precipitation fell during the first half of the month, most districts experiencing no rain or only trifling falls from the 17th to the 28th inclusive.

In England and Wales precipitation was below the normal in the eastern and south-eastern districts; at Margate the month's total represented 64 per cent. of the normal. In the western and north-western districts there was a well marked excess, and in parts of Montgomeryshire and Cardiganshire more than twice the normal was recorded.

In Scotland precipitation was rather below the normal in South Ayrshire and decidedly below in the north east; but elsewhere there was, as a rule, a slight to fairly large excess. Moderate rain or snow during the first three or four days was followed by very heavy rains in the west from 5th to 8th, and in the west wet weather continued until 17th or 18th whilst in the east precipitation during the second week was intermittent. From 4th to 8th Kinlochquoich has fully 9 in., with as much as 3·70 in. (94 mm.) on 7th. From 16th or 18th onwards many districts were rainless, though in some there were trifling falls on 21st, and in the extreme south-west rather heavy falls on the 29th. At Aberdeen three-quarters of the month's small total was accounted for on the 10th and 11th.

In Ireland precipitation was below the normal locally in some south-eastern, southern and western districts, but in general there was a well-marked excess particularly in the northern districts where monthly totals generally exceeded one and a half times the normal.

Heavy flooding occurred in some districts. In Scotland many rivers were in flood on the 4th and later days and on the 9th flooding in the Spey Valley was very extensive, the river bursting its banks at Garmouth. The observer at Southport reported the greatest flooding for over 50 years.

Snow or sleet fell in many districts during the first half of the month; in Scotland snow fell rather widely early in the month, and in some districts about the 10th and 17th. Hail showers were of fairly frequent occurrence. Thunderstorms occurred locally on various days during the first two weeks and widely on the 10th.

Sunshine.—The mean daily duration of sunshine in each of the twelve Meteorological Districts was normal or above the normal, the largest excess relative to the normal occurring in England S.E., where the mean daily duration represented 138 per cent. of the normal.

Sunny periods were experienced widely during the first three days of the month, good sunshine records being obtained in most districts on the 3rd. Sunshine values varying between 7 and 8½ hours were recorded at a number of stations in southern and south-eastern England on the 6th (8·5 hr. at Ventnor, 8·4 hr. at Bognor, 8·3 hr. at Littlehampton and Jersey). In all districts most of the month's sunshine occurred after the 16th, abundant sunshine being recorded widely on the 17th and around the 21st and in England and Wales from the 25th to the 28th inclusive, when between 9 and 10 hrs. sunshine was recorded at several stations (9·2 hr. at Dover on the 25th, 9·7 hr. at Margate on the 26th and 9·9 hr. at Eastbourne, 9·8 hr. at Croydon, Bath and Jersey on the 27th and 9·5 hr. at Bath, Cheltenham and Harwich on the 28th).

Fog.—Fog occurred locally on the 10th, 13th and 14th, widely about the 21st and in Great Britain, notably in the eastern and central districts, on most days during the periods 22nd to 27th inclusive.

Miscellaneous Phenomena.—Halo phenomena, mostly halos of 22°, were observed at many stations on various dates. A mock sun was seen at Clacton on the 18th and at Marlborough on the 25th. Aurora was observed at Arbroath on the 3rd, in Shetland on the 5th, 12th, 13th, 14th, 16th, 17th, 21st and 22nd, at Aberdeen on the 12th, at Gordon Castle on the 12th, 15th and 20th and in Orkney on the 20th.