

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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FEBRUARY, 1933.—Mild, then rather cold; heavy snowstorms 23rd–26th

The mild, unsettled weather which set in at the end of January persisted during the first nine days of February with pressure high over southern Europe and depressions passing east or north-east along our north-western or northern seaboard. Strong winds and heavy rain occurred at times and widespread gales were recorded on the 1st and 2nd. Sunshine was poor on the whole, though the 2nd was very sunny over most of the country.

A change occurred between the 9th and 10th when a ridge of high pressure moved south-east from Greenland and formed an anticyclone off the west of Ireland. In front of this wedge a trough of low pressure moved south-east over England on the 10th. There was a sharp fall in temperature as the polar air moved southward and heavy rain and local thunderstorms occurred in south-east England with the passage of the front. There ensued a spell of moderately cold weather with pressure high west of Ireland and low eastward of the British Isles, but really wintry conditions only began on the 17th when pressure became highest in east Greenland. During the whole of this period sunshine aggregates were good, but sleet or snow, mostly in the form of showers, occurred frequently, particularly from the 17th–22nd.

On the 23rd a small depression appeared in the polar current over the extreme north of Ireland. This disturbance moved south and increased in intensity causing widespread heavy snowstorms and strong, squally winds and local gales. Subsequently it moved westward to a position off south-west Ireland and, with associated secondaries, dominated conditions for the remainder of the month. A thaw set in in the south about the 25th and spread slowly northwards. Precipitation was very heavy in places from the 24th to 26th inclusive.

Pressure and Wind.—Mean pressure for the month was mainly above the normal in the west and north and a little below in the south-east and east, the deviation ranging from +3.5 mb. at Stornoway to -0.9 mb. at Greenwich. Broadly speaking winds from between south and west prevailed until the 10th when a northerly type of weather set in and persisted on the whole until the 23rd. Subsequently winds from between south and east were experienced in most districts. The most notable periods of strong winds and gales were the 1st–2nd, 8th–9th and 24th–27th, though gales occurred locally outside these periods. On the 24th a mean hourly velocity of 68 m.p.h. was registered at Kingstown (a record hourly wind for that station). Among the highest speeds recorded in gusts were 89 m.p.h. at Lerwick and 75 m.p.h. at Kirkwall on the 13th, 77 m.p.h. at Butt of Lewis and 71 m.p.h. at Bell Rock on the 2nd, 73 m.p.h. at Holyhead on the 24th, 72 m.p.h. at Dunfanaghy Road on the 8th, and 71 m.p.h. at Catterick on the 4th.

Temperature.—South-westerly air was responsible for the mildness of the first nine days. Readings of 58° F. or 59° F. were recorded at several places, temperature being generally highest around the 5th and the 8th or 9th. An incursion of polar air brought a sudden drop in temperature on the 10th, but it was not until the 18th that really cold weather occurred. This colder spell lasted until about the 25th in the south and a little longer in the north. Maxima of 32° F. or slightly below were registered locally particularly between the 23rd and 25th, while temperature in the screen fell to 11° F. at Dalwhinnie on the 24th and at Sprowston on the 20th. A grass minimum of 6° F. was registered at Glenbranter on the 24th and at Dalwhinnie on the 23rd and 24th.

The extremes for the month were:—(England and Wales) 59° F. at Workson and Sidmouth on the 5th, at Rhyl on the 1st, at Colwyn Bay on the 4th, and at Cannington on the 9th, 11° F. at Sprowston on the 20th; (Scotland) 57° F. at Edinburgh on the 3rd and at Dunbar on the 8th and 9th, 11° F. at Dalwhinnie on the 24th; (Ireland) 59° F. at Trinity College (Dublin) on the 8th, 20° F. at Glasnevin (Dublin) on the 3rd.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881–1915 was 140, the values for the constituent countries were:—England and Wales 160, Scotland 123, Ireland 109.

Rainfall was below the normal at some places in east and south-east England and also at Holyhead. There was a deficiency in western Ireland, locally in the Hebrides, at some stations in the south-west districts of Scotland and in a strip down the centre of Scotland. Elsewhere there was an excess; in the north-east of England, the Midlands and in Hampshire some places had more than 200 per cent. of the normal, while locally in Yorkshire more than 300 per cent. was recorded. Heavy rain fell in Scotland on the 4th when 76 mm. were measured at Kinloch-quich and 72 mm. at Glenbranter.

By far the most striking feature of the weather of the month was the great snowstorm of the 23rd–26th. It began in Ireland and Wales on the 23rd and during the 24th it spread east and then north beyond the Scottish border. On the 25th and 26th rain and sleet fell in the south but elsewhere there was further snow. In South Wales and Ireland the level snow was 1 to 2 ft. deep in places with deep drifts. The latter were caused by an easterly wind which increased to gale force. In Yorkshire and Derbyshire the average depth of the snow was over 2 ft. locally by the evening of the 26th (30 in. at Huddersfield, 29 in. at Buxton): drifts of 12 to 14 ft. were reported on the moors at Castleton on the 24th. Many villages were isolated in south Wales, Ireland and Yorkshire. The observer at Huddersfield says that it was the heaviest fall of snow in living memory. In Scotland the storm was not so severe but snow 12 in. deep was reported at Lamington on the 25th and 26th. Towards the east the severity of the storm fell off rapidly and the east coast had little snow.

The following extracts from letters show the exceptional severity of the storm:—

Broadford, Co. Clare. "At 4 p.m. (on the 24th) the snow was 12 in. deep where it had not drifted . . . There was no mail in or out from here till . . . the morning of the 1st of March".

Hacketstown Rectory, Co. Carlow. "We have had a record snowstorm . . . with drifts from 6 to 8 or 10 ft. deep".

Buxton. ". . . on the outskirts (of the town) they (the drifts) were more than 6 ft. deep".

Winscombe, Somerset. "All overhead wires, telegraph, telephone and electric are wrecked in this district. The worst snowstorm here during 33 years residence".

The total precipitation during the 3 days, 24th–26th, was large, particularly in some southern districts and in Yorkshire. Among large totals for this period are 120 mm. at Selbourne (Hants), 110 mm. at Stoner Hill, Petersfield, and 105 mm. at Hoddington (Hants) and at Harrogate. Heavy rain and melting snow caused severe flooding in many districts including the valleys of the Thames and the Wey. Thunderstorms occurred locally in the north of Scotland on the 2nd, on the night of the 8th and on the 16th, in S.E. England on the 10th and locally in south-west districts on the 25th, on the night of the 27th and on the 28th.

Sunshine.—The month was sunny on the whole in England, Scotland W. and Ireland S. In other districts aggregates were below the normal, particularly in Scotland N. (see Table I). It was the sunniest February at Southport, Ross-on-Wye, and Renfrew since observations were first taken in 1891, 1915 and 1921 respectively. An unusually sunny period occurred from the 11th–23rd.

Fog.—Fog occurred at times particularly between the 3rd and the 9th, from the 24th to 26th and on the 28th. It was rather widespread and thick locally between the 6th and 9th: it was also thick in north-east England on the 28th. In some places the month was remarkably free from fog: at Southport, for example, the observer noted that fog was entirely absent.

Miscellaneous Phenomena.—Aurora was observed in Scotland on nine occasions. At Oxford solar haloes were noted on six days and the zodiacal light was observed on the 18th, 19th, 21st and 22nd.