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MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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FEBRUARY, 1937:—Excessively wet; notable snowstorm on the 27th and 28th

The month was distinguished by unusually excessive rainfall; more than twice the average occurred over England and Wales as a whole and it was only in parts of the north-west of Scotland that less than the average was received. A notable snowstorm was experienced on the 27th–28th; it was accompanied by a northerly gale which caused deep drifts.

On the 1st a complex depression extended from westward of Scotland over the British Isles and between the 2nd and 5th Atlantic depressions moved north-east along our north-west seaboard while secondary depressions crossed the British Isles. Rainfall was heavy at times, particularly on the 2nd and 4th. Subsequently a wedge of high pressure moved north-east across the country and good sunshine records were reported generally on the 6th and in Scotland on the 7th. A depression which moved from south-westward of Ireland to the North Sea caused renewed rainfall in England and Ireland on the 7th, the rain extending to Scotland during the following night. In the rear of this depression the wind veered towards north-west or north and mainly bright weather prevailed with showers of hail, sleet and snow locally from the 9th–11th. There followed a period when pressure was low near Iceland, while secondary troughs crossed the British Isles causing further general rain. Between the 17th and 20th a deep depression moved from southern Greenland to southern Scandinavia, where it remained almost stationary for several days. In its rear a north-westerly to northerly wind current prevailed for the most part over these Islands with wintry showers and good records of bright sunshine in many areas, though a secondary depression moving rapidly south-east across southern districts caused general rain in England and Ireland on the 21st. On the 24th a depression approached the west of Ireland from the Atlantic and remained with little movement until the 26th. Rainfall was almost general and rather heavy locally in England and Ireland; at some places in the north the precipitation was in the form of sleet or snow. On the 27th the depression moved east across England and in its rear strong northerly winds and local gales prevailed with widespread snow accompanied by deep drifts. A gust of 107 m.p.h. was registered by the anemometer at Holyhead in the early hours of the 28th.

Pressure and Wind.—An interesting feature of the weather of the month was the unusually low mean pressure registered over the country generally, the deviation from the average at 7 h. ranging from —14·4 mb. at Tynemouth to —9·4 mb. at St. Ann's Head. At Oxford the mean pressure at 9 h. was, with the exception of February 1900, the lowest for February since records were first taken in 1881.

Winds from some westerly point predominated and strong winds were rather frequent. Gales were recorded frequently at exposed stations in the west and north and were reported on 16 days at St. Ann's Head, 13 days at Tiree, 9 days at Stornoway, 8 days at Valentia Observatory and 7 days at Wick, Duntulm (Skye), Holyhead and the Scilly Isles. The most widespread gale was that of the 27th–28th; a mean hourly speed of 64 m.p.h. and a gust of 107 m.p.h. were registered at Holyhead in the early hours of the 28th.

Temperature.—Mean temperature was mainly below the average in Scotland, the deficiency being small except at some places in the north and north-east where it exceeded 2°F. On the other hand mean temperature exceeded the average on the whole in England and Ireland. In some parts of England, particularly in the southern half of the country, the excess was considerable; it amounted to more than 3°F. at numerous stations and exceeded 4°F. at a few.

The warmest periods occurred generally from the 2nd–5th and 14th–19th, while the coldest day was, on the whole, either the 27th or 28th, but other cold spells occurred around the 12th and on the 24th.

The extremes for the month were:—(England and Wales) 58°F. at Llandudno on the 3rd; at Shrewsbury, Cannington, Killerton and Holton Heath on the 14th and at Earl's Colne on the 15th, 16°F. at Macclesfield on the 28th; (Scotland) 55°F. at Stirling on the 17th, 11°F. at Braemar on the 24th; (Ireland) 57°F. at Ballinacurra, Cork and Roches Point on the 19th and 25°F. at Glasnevin and Phœnix Park, Dublin, on the 12th and at Newtownforbes on the 28th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881–1915 was 182, the values for the constituent countries being England and Wales 218, Scotland 136 and Ireland 158. Over the British Isles as a whole it was the wettest February since 1870, apart from that of 1923, although February 1915 was approximately as wet as 1937. Totals exceeded the average in all parts except in the extreme west and north-west of Scotland. Over most of England more than twice the average occurred especially in the southern and central districts and at many stations it was the wettest February since before 1870, e.g. Camden Square (London), Slough (Bucks.), Oxford, Salisbury and Bidston Observatory; at Oxford the record goes back to 1815. The excessive rainfall was the more remarkable since it followed an unusually wet January; over the British Isles as a whole the total for the two months exceeded that for any similar period back to 1870. The large totals in February were mainly due to frequent rather than to heavy individual falls, but among heavy falls in 24 hours were:—

2nd. 3·25 in. at Holne (Devon), 2·75 in. at Princetown, 2·04 in. at Ystalyfera, (Glamorgan), 1·80 in. at Cantref and 1·79 in. at Mary Tavy, Devon.

4th. 1·94 in. at Glenshiel (Ross-shire), 1·72 in. at Loch Duich (Ross-shire), 1·71 in. at Holne and 1·65 in. at Glenquoich (Inverness-shire).

27th. 1·65 in. at Wolfelee.

Thunderstorms were reported locally at times mainly on the 9th–10th, 15th–16th and 25th–27th, while a storm on the 22nd caused damage to telephones at Thurso. The snowstorm of the 27th–28th was noteworthy; it was accompanied by a northerly gale which caused deep snow drifts and damage to trees and telegraph poles and, in consequence, many roads were blocked, particularly in Scotland, northern England and Wales. On the 28th undrifted snow was reported to be 14 inches deep at Macclesfield, 10 inches at Newton Rigg and roughly 24 inches at Buxton. In Scotland, drifts up to 5 feet were reported locally in the southern counties and from 7 feet to 12 feet at Glenferness (Nairn-shire).

Sunshine.—Sunshine substantially exceeded the average in Scotland except in an area extending south-west from the Moray Firth on either side of the Caledonian Canal. In southern England there was, on the whole, a considerable deficiency particularly in south-west England and south Wales where the percentage for the district was only 72. In Ireland totals were variable; a considerable excess occurred in the south-east, while a deficiency was experienced in the extreme north and at Valentia in the south-west.

An interesting feature of the distribution was that more than 3·5 hours per day occurred along a coastal strip in eastern Scotland, while less than 2 hours per day was registered over large areas in south-west England, Wales and the western Midlands.

Fog.—The chief periods of fog were the 7th–8th and 12th–15th, but it was also reported at times outside these periods.

Miscellaneous Phenomena.—The aurora was observed in Scotland on seven days; an unusually brilliant display was observed at Waringstown, Co. Down, on the 9th. Brilliant halo phenomena were observed at South Petherton and Bridgwater, Somerset, on the 11th. Solar halos were noted at Oxford on 14 days.

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