

## MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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## FEBRUARY, 1934.—Exceptionally Dry.

The month was sunny and exceptionally dry. It was mild in the northern half of the country and rather cold in southern districts.

On the 1st a large anticyclone was centred westward of Ireland and a depression over Germany. The depression moved away in a southerly direction but caused fresh or strong north-east winds over most of England on the 1st, with a gale locally in the south-east. On the 2nd and 3rd a shallow secondary passed south across Great Britain giving slight local rain, but thereafter until the 6th, conditions were mainly anticyclonic. From the 7th to the 10th, depressions moving from Iceland to Norway caused fresh or strong north-west to west winds in northern districts, with local gales, while rain fell in places, mainly in the north. By the 11th, however, anticyclonic conditions were re-established and persisted throughout the country until the 18th. Between the 18th and 19th a deep depression moved from north-west Iceland to Scandinavia, and the anticyclone retreated westward to a position south-west of Ireland. Further depressions passed eastward off our northern seaboard, and less settled weather with fresh to strong north-west to west winds prevailed in the north, while mainly anticyclonic conditions persisted in the south. On the 24th, a depression centred between Iceland and Norway and an associated trough extending to south-west Ireland moved east and caused some rain in most districts. Cold Polar air of Arctic origin flooded the country in the rear of this system and the northerly winds were accompanied by sleet or snow, which was heavy locally in Yorkshire on the 27th.

**Pressure and Wind.**—Mean pressure was everywhere markedly above the normal, the excess at 7h. ranging from 20.5 mb. at Cahirciveen and 20.0 mb. at Malin Head to 10.4 mb. at Lerwick. The monthly mean pressure map (Fig. 1) shows a centre of high pressure off south-west Ireland, with an extension of high pressure over Wales and southern England. In Scotland pressure decreased rather rapidly towards the north, giving a decided gradient for westerly winds.

Few gales were recorded in England and Ireland, but in northern Scotland they were frequent. A north-easterly gale occurred locally in east and south-east England on the 1st and westerly gales in northern districts between the 7th and 10th. Westerly gales were again reported locally in Scotland between the 18th and 21st, while the northerly winds reached gale force at a few places on the 26th and 27th. In the extreme north gales also occurred at times outside these periods. Among the highest speeds recorded in gusts were 92 m.p.h. at Butt of Lewis, 89 m.p.h. at Kirkwall, and 77 m.p.h. at Catterick on the 7th, 87 m.p.h. at Lerwick on the 10th, and 77 m.p.h. at Eskdalemuir and 76 m.p.h. at Bell Rock on the 8th.

**Temperature.**—Mean temperature was above the average in northern districts and below in the south, the deviation varying from +4.6°F. in Scotland, E. to -2.2°F. in England, S.E. The mild westerly winds which so frequently prevailed in the northern half of the country until the 25th, were responsible for the excess above the average of the temperature in these districts. Mild days were fairly frequent: for example, 58°F. was registered at Dundee and Aberdeen on the 22nd, and 57°F. at Crieff on the 3rd, at Cupar on the 6th and 7th, at Arbroath on the 11th, at Fort Augustus on the 12th, and at Stonehaven and Montrose on the 22nd. In southern districts conditions were mainly anticyclonic and the nights were often cold though the days were mild at times. In some southern and Midland

districts of England ground frosts were unusually prevalent; they were noted at Rickmansworth on each day of the month and at Hampstead and Coventry on 26 days. All districts experienced a spell of cold northerly winds from the 26th to the 28th. The extremes for the month were:—(England and Wales) 57°F. at Rickmansworth on the 16th and at Scarborough on the 21st, 11°F. at Rickmansworth on the 3rd; (Scotland) 58°F. at Dundee and Aberdeen on the 22nd, 18°F. at Eskdalemuir on the 28th; (Ireland) 55°F. at Dublin City on the 10th and at Donaghadee on the 15th and 20°F. at Hazelhatch and Birr Castle on the 27th.

**Precipitation.**—The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881-1915 was 24, the values for the constituent countries being, England and Wales 22, Scotland 42 and Ireland 11. Less than 10 per cent. was recorded in a strip along the south coast of England, in the inland countries of Wales and roughly in a belt across south and east Ireland to south-east Scotland. More than 100 per cent. was registered only in the Orkney Islands, locally in Sutherland and over a part of East Yorkshire. The month thus ranks as one of the driest Februaries on record. In the British Isles as a whole only two Februaries have been drier since at least 1881, namely 1891 and 1932; in Ireland, February 1932 was drier and 1891 equally dry, while in England and Wales only four drier Februaries have occurred since before 1860, viz., 1891, 1895, 1921, and 1932. In south-east Scotland the month was also abnormally dry. At Inchkeith the total, 0.3 mm., is the lowest for February since records were started in 1870, and at many stations in south-east Scotland there were only two days with measurable rain and at some stations only one. In strong contrast to this, at Baltasound, in the Shetland Islands, 0.2 mm. or more of rain fell on 27 days. Widespread snow or sleet fell between the 26th and 28th, and the fall was heavy locally in Yorkshire on the 26th or 27th. Most of Scotland was covered with snow on the 26th, and snow lay to a depth of 5 inches at York and Castleton on the morning of the 28th. Among the heaviest falls in 24 hours are included 41 mm. at York, 36 mm. at Ampleforth and Kildale Hall, 31 mm. at Castleton and East Ayton, and 30 mm. at Osgodby on the 27th.

There were a few local thunderstorms in the west and north of Scotland between the 7th and 10th.

**Sunshine.**—On the whole the month was exceptionally sunny, the percentage of the average for the districts 1-10 being 135. The only district which showed a deficiency was Scotland, N., with 80 per cent., and the sunniest districts were England, N.E., with 170 per cent. and the Midlands with 159 per cent. Among bright days when more than 9 hours were recorded locally may be mentioned the 14th, 20th, 21st, and 26th to 28th.

**Miscellaneous Phenomena.**—The aurora was observed in Scotland on the nights of the 3rd, 4th, 5th, 16th, 19th and 20th. A solar halo was noted at Oxford on the 8th and the zodiacal light was observed during the evenings of the 8th, 9th, and 11th.

**Fog.**—Fog (often thick) occurred frequently in England, particularly on the 3rd, 6th, during the anticyclonic spell from the 11th to 19th, and again from the 22nd to 24th. Much less fog was experienced in Scotland owing to the prevailing westerly winds but it was recorded at times, mostly on the first three days and around the 15th.