

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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FEBRUARY, 1942.—Exceptionally cold; dry; dull in England and Wales.

The month was remarkable for its persistently cold character. It was also dry on the whole, notably so in the south-west of England and Wales, and mainly dull in England and Wales.

During the opening days pressure was high both to the north-east and south-west of the British Isles, while an elongated trough of low pressure lay over this country; precipitation was general, mostly in the form of snow except in the west, and by the morning of the 3rd the ground was covered with snow to a depth of more than six inches locally in north-east England and south and east Scotland. By the 5th an anticyclone was situated westward of the British Isles and on the 6th and 7th an elongated trough of low pressure, associated with a depression north of the Shetland Isles, moved slowly east over our western districts; temperature was low, and mainly slight, scattered precipitation occurred, but locally in east Kent there was considerable snow on the 5th. Subsequently pressure continued high westward of Ireland while small disturbances moved south-east from the neighbourhood of the Faeroes. Temperature rose somewhat and there was some precipitation but it was slight in most parts. On the 11th and 12th an Icelandic depression moved south-east and, in its rear, gales were reported locally on the 12th and 13th, while sunshine records were mainly good on the 13th.

Thereafter the Azores anticyclone moved slowly north-east across the British Isles to southern Scandinavia, increasing in intensity meanwhile, and ultimately it moved north-west to Iceland; a spell of cold, mainly anticyclonic conditions prevailed over the British Isles until the 20th. On the 21st and 22nd a secondary depression over Portugal spread north-east, while pressure continued high northward of Iceland; very cold north-easterly winds prevailed, with slight snow and an east-north-easterly gale was reported at Tynemouth on the morning of the 21st. On the 23rd and 24th pressure was high to the north and low to the south of the British Isles and weather continued cold, with slight snow locally. By the 25th a ridge of relatively high pressure extended from north-east to south-west across the British Isles; subsequently it moved away south-south-east. Meanwhile depressions moved north-east along our north-west seaboard; precipitation occurred in the west and north and was fairly heavy locally.

Pressure and Wind.—Mean pressure exceeded the average, the excess being greatest in the north; the deviation at 7h. ranged from +4.4 mb. at Lympne to +11.9 mb. at Stornoway. Mean pressure was thus very uniform over the British Isles. Winds from some northerly point were more prevalent than usual, north-easterly winds being particularly frequent in the south. Gales were infrequent; the most widespread occurred on the 12th-13th but gales were also registered locally in north Scotland between the 1st and 3rd and on the 26th and 27th and a gale was reported at Tynemouth on the 21st. Among the highest speeds recorded in gusts were 65 m.p.h. at Kirkwall on the 3rd, 74 m.p.h. at Lerwick on the 12th and 68 m.p.h. at Stornoway on the 27th.

Temperature.—Mean temperature was notably low; over Scotland the deviation from the average was -4.5°F . and over England and Wales -7.1°F . (see Table 1). At a large number of stations in the Midlands and in England, S.E. the deficiency was 8°F . or more. Over Scotland generally it was the coldest February since 1900 and over England and Wales since 1895. The very low mean temperature was due to prolonged cold rather than to any short period of intense cold. Screen temperatures of 10°F . or below were registered only at a very few stations but readings of 15°F . or below were fairly numerous in Great Britain, notably on the 8th, 9th and between the

20th and 27th. In contrast the previous hard Februaries of 1917 and 1929 each gave readings below 0°F . Day temperatures, too, were persistently low; in Scotland temperature in the screen nowhere reached 50°F ., a condition which has not been recorded in any previous February for at least 80 years. The same condition prevailed over most of England (see Table III). The prolonged cold of February was the more important since it followed an unusually cold January. The mean temperature for the two months taken together may be compared with the same period in 1940 and 1941; over England and Wales mean temperature was lower than in 1941 and about equal to that in 1940.

The extremes for the month were:—(England and Wales) 56°F . at Newton Abbot on the 2nd, 7°F . at Houghall on the 8th; (Scotland) 49°F . at Tiree and Skallary on the 3rd, at Gordon Castle and Baltasound on the 15th, at Kilmarnock and Auchincruive on the 20th and at Skallary also on the 2nd and 9th, 5°F . at Braemar on the 25th; (Northern Ireland) 52°F . at Donaghadee and Armagh on the 3rd, 15°F . at Aldergrove on the 23rd.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 50 over England and Wales, 72 over Scotland and 69 over Northern Ireland. An excess occurred over a fairly large area in north-east England and at a few rather widely separated stations in the eastern coastal district of Scotland. More than the average occurred also over a small area in east Kent and at one or two isolated stations elsewhere. The month was notably dry in south-west England and south Wales; less than 10 per cent. was received on most of the south coast from Falmouth to Portland and on the north coast of Devon. A few places in Scotland recorded an absolute drought from the 11th to 25th and many places in England experienced an absolute drought from the 13th-28th; at Teignmouth there was no measurable rain from the 7th-28th.

Falls of one inch or more occurred at a number of places on one or other of the first few days and locally in the north-west on the last three days. Among the largest daily falls were 2.50 in. at Tarbert (Jura) and 2.38 in. at Torrisdale Castle, near Carradale (Argyll) on the 2nd and 2.10 in. at Eoligarry (Barra) on the 26th.

Snow occurred frequently and the falls were heavy at times during the first week. Many Aberdeenshire villages were completely isolated for several days and on some of the roads near Kelso, Roxburgh, drifts were 18 feet deep. Snowfall was heavy also in parts of England; at Bellingham level snow was 10 inches deep from the 2nd-6th and snow lay 14 inches deep at Harrogate, 10-12 inches at Bingley and 10 inches at Mayfield on the 3rd. Owing to the persistently low temperatures snow remained on the ground for a long time, particularly on high ground; at some places it lay throughout the month.

Sunshine.—In England and Wales sunshine was considerably below the average on the whole; in eastern districts it was particularly scanty. In Northern Ireland sunshine was about average and in Scotland, it was variable, but for the country generally it was not very different from the average.

Fog.—Local fog occurred at times chiefly on the 1st-3rd, 6th-10th, 15th, 20th and 25th.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 12 nights. Solar halos were noted at Oxford on five days. A brilliant meteor of greenish colour was seen in the north-east from Duntuil, Skye, on the evening of the 13th.