

# Monthly Weather Report

M.O. 722

## OF THE METEOROLOGICAL OFFICE

Summary of observations compiled from returns of official stations and voluntary observers

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### December 1962 — *Cold; fog early, gales mid-month, heavy snow-fall last week.*

After nearly a week of anticyclonic weather the 7th-20th was mainly cyclonic with troughs moving eastwards across the country in an airstream frequently from high latitudes. Weather during the remainder of the month was dominated by anticyclones over the continent and near Iceland.

A ridge of high pressure extending westwards from the continent covered much of the British Isles for most of the first week. Weather was generally dry but foggy with light variable or south-easterly winds in the south and mainly southerly winds in the north-west. Widespread overnight fog in central and southern England cleared during the day on the 1st and 2nd, but during the latter part of the week it persisted day and night over much of the country with sub-freezing temperatures. The fog thinned during the night of the 5th/6th except in south-east England, and by noon the next day was chiefly confined to the Thames Valley where it was very dense in places. The spell of fog in the London area lasting from the 4th to the 6th, was the worst since the "Great Smog" of December 1952.

A changeable period followed, stormy weather alternating with fairer spells. Wind increased on the 7th clearing the last of the fog, and cold-front rain, associated with a deep depression near Iceland, reached western Scotland during the afternoon; rain became heavy the following morning as a wave on the cold front moved over the country. Gales were widespread and temperatures about average. After a showery day on the 9th warm-front rain, of a depression moving south-east towards Scotland, reached western districts during the afternoon of the 10th, and rain continued in most districts during the night and for much of the following day with fresh to strong winds reaching gale force at times. On the 12th a cold northerly airstream behind the depression brought snow to parts of Scotland and eastern England; it lay 2 in. deep in parts of Durham and Norfolk. There were occasional snow and sleet showers on the 13th, but rain, associated with an active depression south of Iceland, reached north-west districts during the evening and spread south-east across the country that night and the next day. The 15th was very wet and stormy with a deep depression moving south-east across northern Scotland. Winds of an average speed around 50 kt swept across Northern Ireland and western Scotland.

The gales subsided gradually on the 16th which began nearly a week of generally showery weather (thunder, hail and sleet were widespread on the 18th) with north-westerly winds and good sunny periods, except for the 17th and 20th when troughs moving east across the country brought more continuous rain to most districts.

The weather pattern changed on the 22nd, a quiet foggy day with rapidly rising pressure. By the 23rd a ridge of high pressure extended from the southern Baltic to south-west England and a very cold easterly airstream from central Russia spread to most districts of the British Isles. The 23rd and 24th were fine sunny days in England and Wales with temperature around freezing throughout, but a trough of low pressure moving southwards brought rain to the extreme north of Scotland on the 24th. The rain turned to snow as it moved slowly southwards, and on Christmas Day level snow lay 3 in. deep in the Glasgow area. Late on the 25th the anticyclone over the British Isles moved westwards to the Atlantic, and the trough, continuing its movement southwards, brought snow to all districts on the 26th; it became slow-moving over southern England during the evening giving many places 24 hours of continuous snow. Much of southern England lay under a foot of snow on the 27th and snow was 2 in. deep in the Channel Islands. The snow gradually died out the next day clearing the south coast by mid-afternoon. On the 29th a depression moved north from the Bay of Biscay towards south-west England and an associated trough of low pressure advanced slowly north to the English Channel. This brought heavy snowfall

with much drifting in gale force winds. Many towns and villages were completely isolated by snowdrifts, in places, 15-20 ft. deep. Snow turned to rain in the extreme south-west on the 31st, but elsewhere temperature remained below freezing with snow showers in the north.

**Pressure and Wind** — Pressure was everywhere above average, the excess at 9 hr ranging from 5.0 mb at Stornoway to 1.3 mb at Shoeburyness. Surface winds were mainly between south and south-east until the 6th, becoming predominantly north-westerly until the 22nd, after which winds were mainly easterly in the south, but rather more variable in the north, until the end of the month. Wind reached gale force in Scotland on 16 days, and in England and Wales on the 7th-16th, 20th, 24th, and 29th-31st (15 days) where gales were widespread on the 15th and 16th. On the 15th a gust of 102 kt was recorded at Lowther Hill, Lanarkshire, and one of 78 kt at Bidston Observatory.

**Temperature** — Mean temperatures were below the 1921-50 average everywhere, the deficit being 2.3°C in England and Wales, 1.0°C in Scotland and 0.7°C in Northern Ireland. Temperature was about average from 7th-20th, otherwise it was considerably below average, especially during the last week of the month when frosts were very severe; at Huddersfield a grass minimum temperature of -16.5°C was recorded, the lowest there since 1895. In the London area mean screen temperatures over the Christmas period (24th-26th) were the lowest since 1897.

Extremes included: (England and Wales) 15.0°C at Mackworth on the 15th, -15.6°C at Loggerheads on the 29th; (Scotland) 13.3°C at Kinlochewe on the 5th, -16.1°C at Braemar on the 30th; (Northern Ireland) 13.3°C at Ballyhalbert and Loughgall on the 15th, -9.4°C at Knockmany on the 29th.

**Precipitation** — The general rainfall expressed as a percentage of the 1916-50 average was 83 over England and Wales, 113 over Scotland and 101 over Northern Ireland. In England and Wales rainfall exceeded the average along the south coast of Sussex and Kent, and in parts of Cornwall, Lancashire and north-east Wales, the east Midlands and north-east England. In Scotland, it was appreciably above the average only over the northern half of the country.

Thunder was heard in Scotland on 8 days and in England and Wales on the 8th, 9th, 12th, 13th, 16th, 18th, 19th and 28th (8 days).

Snow or sleet showers occurred in most districts around the 13th with falls of up to 2 in. in parts of the north-east. Most of the country was snow-covered during the last week of the month, snowfall beginning in the north on the 25th and in the south on the 26th; it was 12 in. deep at many places in the south-east, including the London area, on the 30th and 31st. Snow or sleet was reported at one place or another on 24 days in Scotland, and ground was snow-covered on 22 mornings; in England and Wales the corresponding figures were 12 and 7.

**Sunshine** — The general sunshine expressed as a percentage of the 1921-50 average was 157 over England and Wales, 119 over Scotland and 98 over Northern Ireland. In Scotland sunshine totals were mostly above December averages except for a few places adjacent to the inner Moray Firth. Some places in the south had quite large excesses. Parts of central and south-east England had more than twice their average amount and there was more than three times the average locally in central London. At Hastings and Worthing it was the sunniest December since records began in 1883 and 1899 respectively.

**Fog** — Fog was widespread during the first week, and was reported from one place or another on 22 days in Scotland and on 1st-7th, 12th, 14th, 15th, 17th-20th, 22nd and 24th-31st (23 days) in England and Wales.

**Miscellaneous Phenomena** — The aurora was observed in Scotland on 14 nights.