

SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

JANUARY 1901.

(Issued as a Supplement to the Weekly Weather Report, 1900.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; W. N. SHAW, F.R.S., SECRETARY. PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST., EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & CO., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of January was very changeable, with frequent falls of rain (mostly slight in amount) and with snow during the second week and also at the close of the month. An aurora was seen in the north of Scotland on the 22nd, and thunder and lightning occurred at many northern stations on the 24th and 25th. Pressure and temperature were each slightly above the average; the winds varied a good deal in direction, but were mainly Southerly in the west and north; rainfall was deficient excepting in Ireland; bright sunshine was in excess of the normal in the south and east, but showed a deficit in many of the western and northern districts.

Pressure.—*Mean at 8 a.m.* ranged from 30·05 ins. and upwards over the south-east of England and the eastern parts of the Channel to 29·80 ins. and less in the extreme north of Scotland, and to 29·75 ins. and less in the Shetlands. The general distribution over our islands agreed very closely with the normal, but the actual values were above the average,* the excess being everywhere slight, but greatest in the north of Scotland. *Highest* readings were recorded over the country generally on the 23rd, when the barometer rose to 30·6 ins. and upwards over the south-eastern and south midland counties of England, to 30·5 ins. and upwards over England and Ireland generally, and to 30·2 ins. and upwards on all but our extreme northern coasts. In the north and east of Scotland, the highest readings (30·4 ins. to 30·5 ins.) were recorded on the 6th. *Lowest* readings were observed during the passage of the deep depression of the 27th, when the barometer fell to between 28·5 ins. and 28·6 ins. in Caithness and the Shetlands, to 29·0 ins. and less over the northern parts of Great Britain generally, and to 29·7 ins. and less on all but our extreme south-west coasts. In the last-mentioned region, the lowest readings, 29·0 ins. to 29·5 ins., were recorded on the 9th. *Range* was moderate for the time of year.

Depressions.—During the earlier half of the month very few depressions were observed in our immediate neighbourhood, the only disturbance of any importance being that of the 9th. In this case the system advanced north-eastwards over the Bay of Biscay and on reaching the mouth of the Channel developed great intensity, its influence being, however, of a singularly local character. Soon after striking our coasts, the disturbance began to fill up, this process continuing throughout the 10th and 11th, when the centre moved northwards and westwards across Ireland. In the latter half of the month depressions were somewhat numerous, the most important being those which appeared in the north between the 22nd and the 28th; the disturbance of the 27th skirted the north of Scotland and afterwards passed east-south-eastwards across the North Sea, its progress being attended by severe Westerly to North-westerly gales over nearly the whole of our Islands.

Anticyclones.—Two such systems were observed. The first resulted from the junction of a comparatively small area advancing from the Atlantic at the beginning of the month with a larger area previously existing over Northern and Central Europe. The combined system dominated these islands until the 6th or 7th, when it drifted away to the eastward. On the 13th it extended again over Great Britain, but this change was purely temporary, the system moving away to the eastward and south-eastward after the 14th. The second anticyclone spread over our islands from the south-westward on the 22nd and 23rd, but soon travelled away to the central, and eventually to the southern, parts of the Continent.

Winds.—At the western and northern stations, the prevailing winds were Southerly (South-Easterly to South-Westerly). In the south and east of England, however, they were more variable, and in some places there was a rather large proportion of winds from the Eastward. Gales were somewhat frequent, but with the exception of the Westerly gale of the 17th, to which allusion has already been made, they were of no great severity.

Temperature.—*Mean at sea level* ranged from between 45° and 47° on our extreme south-west coasts, to 40° and less over Central Ireland, and to 38° and less in most inland parts of the north and east of England as well as at a few inland stations in Scotland. The general distribution agreed very closely with the normal, but the actual values were above the average,* excepting over Central England, where there was a slight deficit. *Highest* readings occurred on the 14th and 15th in the west of Scotland, between the 20th and 22nd in the west and north generally, and on the 26th or 27th in the eastern, central and southern districts, the thermometer on one or other of these dates rising to 55° or slightly above it in many parts of the country. *Lowest* readings occurred mostly between the 8th and 10th, when the thermometer fell below 20° in several places; at Southampton the minimum on the 9th was as low as 13°, while at Swarraton the thermometer is reported to have fallen to —2°. *Range* was moderate. *Vapour Tension* ranged from between 0·24 in. and 0·26 in. on our extreme west and south-west coasts, to 0·20 in. and less over the inland parts of England and the eastern and central parts of Scotland. *Relative Humidity* varied from 95 per cent. and upwards over Central Ireland, and 90 per cent. and upwards at several of the English stations, to 84 per cent. at Nairn, and 81 per cent. at Valencia.

Rainfall was slightly in excess of the average in Ireland, and also at a few places in the south-west of England and the north and east of Scotland. Elsewhere there was a deficiency, the amount in the east and south of England being as a rule considerably less than half, and in some places less than one quarter, of the normal. The largest aggregates reported were:—7·0 ins. at Fort William, 6·0 ins. at Glencarron, and 5·8 ins. at Valencia; the smallest were 0·4 in. at Cambridge and Geldeston, 0·5 in. at Spurn Head and Felixstowe, and 0·6 in. at Dungeness and Hastings, less than one inch being collected at most stations in the east and south-east of England. Snow or sleet fell in many parts of the United Kingdom between the 7th and 10th, and in all the more northern and eastern districts between the 24th and 27th.

Bright Sunshine amounted to less than the average* in many of the western and northern districts, but was in excess in the south and east. The percentage of the possible duration ranged from 30 or slightly above it on many isolated parts of the English and Welsh coasts to 10 or less at several of our northern stations (including also London and Cirencester) and to only 2 at Morpeth.

* The averages employed are—*Pressure and Temperature* for the 30 years 1871–1900; *Rainfall* for the 35 years 1866–1900; and *Bright Sunshine* for the 20 years 1881–1900. (The averages will be published shortly in the preface to the "Weekly Weather Report for 1900.")