

MONTHLY WEATHER REPORT

AUGUST

1977

COMPILED FROM RETURNS OF OFFICIAL AND VOLUNTARY OBSERVERS

VOLUME 94

NUMBER 8

Mostly cool; sunny in north, thundery and very wet in south.

A ridge of high pressure which moved across southern districts at the beginning of the month was followed by frontal systems from the north-west and west. An anticyclone then crossed northern areas, while slow-moving fronts affected southern England. Pressure was generally high from the 9th until about mid-month, but an occlusion moved slowly into western districts on the 14th. Fronts associated with continental depressions affected much of England and Wales between the 16th and the 22nd, and a ridge of high pressure over the British Isles on the 23rd was quickly succeeded by frontal systems from the west. A depression which moved up the English Channel on the 27th was followed by a ridge, but fronts from the Atlantic moved across all areas after the 28th.

Weather

Although northern and some western districts had a sunny month, temperatures were not exceptional and it was cool over England and Wales. Most places recorded their highest temperatures at the beginning of the month or during the second week. Rain or showers fell in many areas between the 4th and the 8th, but much of the second week was dry. Coastal fog formed most frequently during the first half of the month. The third week was very wet over the southern half of England and Wales and outbreaks of rain occurred more generally during the last week. Much of the August rainfall was thundery; hail fell in places and sleet was reported in the Grampians, where large patches of snow persisted at high levels.

Wind

Winds were occasionally fresh or strong in exposed places in the west and north during the first week and reached gale force locally on western coasts on the 4th and 5th. Fresh or strong winds occurred more frequently during the second half of the month, particularly from the 24th onwards, when speeds reached gale force at times on coasts and hills in the north. Maximum gusts were mostly recorded on the 24th, the 25th or on the 29th, when the high-level station at Cairngorm (Highland Region) had a gust of 71 kt. Winds blew mostly from points between south-west and north-west until the 5th, but then became rather variable, and occasionally light, until around mid-month. Directions were then predominantly between east and north until the 24th, when south to south-westerly winds gradually spread over England and Wales. Northerlies prevailed on the 27th, but most districts had south-westerly winds towards the end of the month.

Temperature

Monthly mean temperatures were a little above average in the Isle of Man, about average in Northern Ireland, and mostly within 0.5 °C of average over Scotland. Over England and Wales mean temperatures were below normal, except in a few places in the west and north, mostly by not more than 1.0 °C, but by between 1.0 and 1.5 °C at one or two places in southern England. The first few days of the month were warm, particularly in eastern districts and in central England, where the temperature rose to 28.3 °C at Warsop (Nottinghamshire) on the 1st. Some eastern and southern counties of England remained warm until the 5th, but it became cooler generally and a slight air frost occurred

in parts of Scotland on the night of the 5th/6th. Western areas, especially the north-west, enjoyed some warm days during the second week, but the east coast was cool. There were a few warm days in the second half of the month, but it was mostly cool and the night of the 27th/28th was very cold in Scotland and northern England with an air frost in several places.

Rainfall

Monthly rainfall totals were above average in Orkney and Shetland, in parts of eastern and south-western Scotland, in a few places in Northern Ireland and along the Welsh coast, but the largest area with above-average rainfall was south of a line from the Humber to the Bristol Channel. Totals exceeded 200 per cent of the normal in parts of the south Midlands and East Anglia, and also in counties to the west of London. Some places in the Thames Valley, and on Salisbury Plain, had more than 250 per cent of their normal amount of rain for the month. Rainfall was below average almost everywhere else and, in sharp contrast with the wet areas, was well below normal in some districts. Less than half the average fell in places in north-west Scotland and north-east England, and over the Cheshire Plain. A number of heavy 'daily' rainfalls were recorded during the month and on the 'rainfall day' of the 4th (the 24 hours from 09 GMT) 140.0 mm were measured at Honister Pass (Cumbria). Among the very heavy falls of rain during thunderstorms, which occurred most frequently during the second half of the month, were some within the 'very rare' category: on the 15th 97.8 mm fell in 2½ hours at Moel Cynnedd (Powys) and hailstones of about 3 cm in diameter were reported; 113.0 mm were measured in Ruislip Manor on the night of the 16th/17th and 84.8 mm fell in about 3 hours at Dartford (Kent) on the

27th, severe flooding occurring on both these latter occasions. In Scotland, an accumulation of hail to a depth of about 20 cm was reported at Ochiltree (Strathclyde) on the 22nd, in association with thunderstorms in the area.

Sunshine

Except in the extreme west and in parts of the north, monthly sunshine totals over England and Wales were below normal and were mostly between 75 and 100 per cent of average. Northern Ireland, Scotland and the Isle of Man had above-average sunshine, with totals generally exceeding 120 per cent of the normal. In Northern Ireland, some places in the Lough Neagh area recorded about 150 per cent of their average sunshine and in Shetland, Baltasound, with 191.6 hours (161 per cent of average), had its sunniest August since 1938. The first half of the month was the sunnier generally, but there were occasional sunny days subsequently.

Fog

Patches of fog on coasts occurred most frequently during the first half of the month and hill fog was occasionally reported. Overnight fog patches in inland areas mostly occurred early in the month, in the second week, particularly on the nights of the 9th/10th and 10th/11th, and around mid-month. The fog was persistent at times on coasts, but cleared during the morning in inland areas.

Miscellaneous Phenomena

The Press reported a fall of grass and a little soil from the base of a shower cloud in the Poole (Dorset) area on the evening of the 8th. In Scotland the aurora was observed on one night.

Table 1 District values

District	air temperature °C					mean 30-cm earth temp °C	rain-days	rainfall	sunshine
	Highest Max*	Lowest Min.*	max.	min.	mean				
	difference from average								
0 Scotland N	25.0	2.0	+0.3	-0.4	-0.1	-0.4	-7	71	130
1 Scotland E	25.4	-1.5	+0.1	-0.4	-0.1	+0.3	-4	84	129
2 England E & NE	26.7	2.9	-0.8	-0.1	-0.4	-0.1	0	87	92
3 East Anglia	27.0	5.1	-1.3	-0.1	-0.7	-0.6	+1	151	82
4 Midland Counties	27.0	3.0	-0.8	-0.3	-0.5	-0.5	+1	124	87
5 England SE & Central S	26.3	4.7	-1.0	-0.2	-0.6	-0.6	+1	161	81
6 Scotland W	25.0	-1.5	+0.6	-0.5	0.0	+0.1	-4	94	132
7 England NW & Wales N	25.2	2.1	+0.3	-0.3	0.0	-0.7	-3	61	103
8 England SW & Wales S	25.4	5.5	-0.1	-0.4	-0.2	+0.1	-2	121	98
N Ireland	23.8	2.0	+0.5	-0.6	0.0	+0.4	-6	92	136
Scotland	25.4	-1.5	+0.3	-0.4	-0.1	0.0	-5	83	130
England & Wales	27.0	2.1	-0.6	-0.2	-0.4	-0.4	0	117	91

*Highest maximum and lowest minimum of District Value Stations.