

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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

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August 1970 — Warm spells but cool and wet during the third week

High pressure dominated the weather over the British Isles during the first 10 days of the month and again for most of the last week but weak troughs of low pressure affected some areas at times during these periods. Low pressure was persistent in all districts from the 12th to 22nd and, on the 16th, a deep depression crossed the country from the south-west.

Weather — The first fortnight was warm in many areas but there were local thunderstorms; during the last week warm weather returned and it was mostly dry. The period 14th to 22nd was very cool and the weather was often stormy. Flooding was reported from widely separated areas, including Northern Ireland (particularly around Belfast) on the 16th and the west Midlands (including Birmingham) on the 20th. The most severe flooding occurred in east Scotland as the result of very heavy and frequent rain from the 16th to 21st. The Rivers Lossie, Spey and Findhorn over flowed and flood-water caused damage in the towns of Forres and Elgin. The counties of Moray and Nairn were most affected and many acres of crops ready for harvesting were destroyed and livestock perished. The cost of removing silt and debris from fields alone was estimated to be £300,000.

Wind — Strong winds with gales in places occurred in most districts from the 15th to 17th. Especially strong winds were widespread on the 16th when slight damage was reported from many areas and small craft were often in difficulties in rough coastal waters. On the 16th, Valley (Anglesey) recorded both its highest hourly mean wind speed (44 kt) and its highest gust (61 kt) in August since records began in 1952; these values represent the highest wind speeds recorded in Anglesey in August since at least 1912 although the gust speed was equalled in 1923.

Temperature — Monthly mean temperature was within 1 degC of average in all districts. During the first week temperatures exceeded 25°C at times in areas as far north as Sutherland but places near the North Sea coast were much cooler. It was very warm again at times during the last 10 days, particularly in England and Wales but, once more, eastern areas were cooler. Maximum temperatures recorded included: 28.9°C at Santon Downham (Norfolk) and Usk (Monmouthshire) on the 3rd; 27.2°C in a few places in north and west Scotland around the 5th; 26.1°C at Greenmount (Co. Antrim) on the 5th.

The third week was cooler than average. On the morning of the 18th the air temperature at Winfrith (Dorset) fell to 0.6°C and slight ground frost occurred widely in southern England. Apart from upland stations, other minima were: 1.7°C at Wauchope (Roxburghshire) on the 11th; 2.2°C at Corwen (Merioneth) and at Lisnafillan (Co. Antrim) on the 18th.

Rainfall — Taking a general view, rainfall was about average but there were wide variations in places. For example, whereas over twice the average rainfall occurred in parts of east Scotland and the west Midlands, less than half the average fell in parts of south Scotland and east England.

Severe thunderstorms in the Midlands and southern England on the evenings of the 7th and 8th produced some intense rainfalls leading to local flooding. On the 7th, about 65 mm of rain occurred at Harwell (Berkshire) in 81 minutes; this constitutes a 'very rare' rainfall which is expected to occur, on average, at any one place on only 1 day in 160 years or more. The outstanding feature of the

month was heavy and widespread rainstorms which occurred during the period 15th to 21st and resulted in flooding in many areas. Very heavy rain fell in most parts of the country on the 15th and 16th, more especially in the north, and persisted in east Scotland on the 17th. In the 24 hours ending 0900 GMT on the 16th nearly 118 mm of rain fell at Kilroot (Co. Antrim), and Armagh Observatory recorded its highest 'daily' rainfall (78 mm) since records began in 1840. During the next 24-hour period 'daily' falls in excess of 80 mm occurred in the counties of Nairn and Moray; these falls included nearly 98 mm at Lochindor: Lodge (Moray) where the total rainfall during the period 0900 GMT on the 16th to 0900 GMT on the 18th amounted to 152 mm. More heavy rain fell in most areas on the 19th and 20th; 'daily' falls on the 19th included nearly 98 mm at Timberscombe (Somerset) and 97 mm in Birmingham. This heavy rain, associated with a slow-moving depression, renewed floods in north-east Scotland but the last week of the month was mostly dry everywhere.

Local thunderstorms occurred in a number of places during the first week, especially in England and Wales. They were reported again widely around the 21st and a girl died on the 22nd after being struck by lightning near Birmingham.

Sunshine — Monthly sunshine amounts were near average in most districts. Notable exceptions occurred in parts of Scotland where, in the south, sunshine was above average but, in the north, it was dull and Lerwick recorded its lowest August sunshine total since 1942. It was also dull in parts of the West Country.

Fog — Fog affected many coasts, mainly in the east, during the first week, fog patches persisted all day in some coastal places and fog occasionally spread inland at night, notably on the 4th and 5th. Fog also occurred in most areas at times during the last 7 days.

Miscellaneous Phenomena — A waterspout was seen in the Thames estuary near Sheerness on the 22nd and a well-developed dust whirl occurred at Swyddffynnon (Cardiganshire) on the 28th.

TABLE I—DISTRICT VALUES, August 1970

DISTRICTS	AIR TEMPERATURE °C					EARTH TEMP. °C		RAIN DAYS	RAIN-FALL	SUNSHINE
	*Highest Max.	*Lowest Min.	Max.	Min.	Mean	Mean 30 cm.	Mean 122 cm			
	Difference from Average					% of Average				
0 SCOTLAND, N.	26.7	4.0	+0.2	+0.2	+0.2	+0.6	-0.1	-5	105	83
1 SCOTLAND, E.	26.1	5.0	-0.1	+0.5	+0.2	+0.1	-0.1	-3	119	89
2 ENGLAND, N.E.	26.1	3.9	-0.2	+0.3	+0.1	+0.5	+0.2	-5	80	107
3 ENGLAND, E.	28.3	4.4	-0.4	-0.2	-0.3	-0.2	0.0	-3	73	102
4 MIDLANDS	27.8	5.0	-0.2	+0.2	0.0	0.0	+0.1	-3	110	107
5 ENGLAND, S.E.	27.6	3.0	-0.3	+0.1	-0.1	-0.6	-0.7	-1	101	99
6 SCOTLAND, W.	26.6	2.8	+0.5	+0.4	+0.5	+0.1	-0.2	-6	69	113
7 ENGLAND, N.W. and N. Wales	26.8	5.0	+0.7	+0.2	+0.4	0.0	-0.3	-7	102	107
8 ENGLAND, S.W. and S. Wales	27.8	5.6	-0.4	-0.1	-0.2	-0.2	+0.1	-2	105	89
N. IRELAND	25.1	2.4	+0.8	-0.4	+0.2	--	--	-9	107	109
SCOTLAND	26.7	2.8	+0.1	+0.3	+0.3	--	--	-4	95	92
ENG. and WALES	28.3	3.0	-0.1	+0.1	0.0	--	--	-3	99	102

*Highest Max. and Lowest Min. of the District Value Stations.