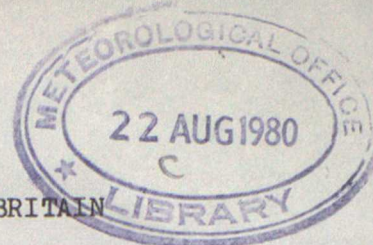


METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT OVER GREAT BRITAIN

AT 0900 ON 20 AUGUST 1980



The unsettled weather so apparent in the present summer has continued in the most recent fortnight. Some places, notably around the Moray Firth, parts of East Anglia, Kent and southwest England have experienced very little rain (although the fortnight has by no means been rain free). At most places, however, there have been days of very heavy rainfall, accompanied by violent thunderstorms on 7th and 14th. The 6th was a mainly dry day but heavy rain, exceeding 12 mm, did fall over an area extending from North Wales to the North York Moors and Lincoln Wolds. Rainfall was even heavier on the 7th over a similar area, with more than 35 mm over much of Lincolnshire: an unconfirmed report of 105 mm in the Fakenham area of Norfolk has been received. Outbursts of heavy rain occurred quite widely on 11th from northwest Scotland to the Pennines and central Wales but the 12th was a day of much heavier rainfall over much of Wales and southern England: 20 mm was exceeded quite widely in these areas. Possibly the most interesting rainfall of the year generally occurred on 14th. More than 30 mm was recorded in a belt about 75 km wide, extending from the New Forest to the North York Moors and also along the Pennines, Lake District, Southern Uplands and extreme northwest Scotland. Cells with more than 60 mm lay along the line from the Goring Gap to the Northampton Heights. It was the wettest day of the year so far over England and Wales. The last few days of the fortnight were more settled and drier in most areas. Nevertheless, values exceeded 12 mm in Shetland and northeast Scotland, on 16th in areas extending from northwest Scotland to southwest England and on 19th on the west coast of Scotland and the Hebrides. In the previous bulletin, reference was made to the wet June-July. Total rainfall for June-August 1980 is already the greatest since 1960 over England and Wales and since 1948 over Scotland.

Less than half the average for the fortnight was recorded on Speyside, the Norwich area, and parts of southwest England. Values exceeded twice the average in the Southern Uplands, east Midlands and New Forest and more than three times the average was recorded in an area extending from Peterborough to Lincoln.

Following the storms of 14 August, and earlier heavier rainfall in Lincolnshire, a swathe of relatively low soil moisture deficit has developed along the Northampton Heights, Lincoln Wolds and Yorkshire Wolds. Deficits may also be much lower than apparent in north Norfolk. Deficits have decreased substantially in the fortnight, particularly in eastern areas from Yorkshire to Welland and Nene. General values of soil moisture deficit for areal land use were below average near most River Areas of England and Wales and all River Purification Board areas but were about 20 per cent above average in East Anglian areas, Thames (including Lea) and Wye and were 30 to 40 per cent above average in Bristol Avon, Gwynedd and the Scottish Islands.

RATE OF SUBSCRIPTION: £22.73 per season (post free)

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.) AT 09 GMT ON 20 AUGUST 1980

RIVER AREA	AREAL LAND USE ESTIMATED S.M.D. MM	CHANGE DURING THE WEEK ENDING 09 GMT ON	
		20 AUGUST 1980 MM	13 AUGUST 1980 MM
Northumbrian	30.5	- 10.5	- 4.9
Yorkshire	48.4	- 16.7	- 20.3
Trent	65.3	- 18.6	- 15.8
Lincolnshire	64.6	- 26.9	- 22.8
Welland and Nene	66.9	- 22.8	- 23.9
Great Ouse	99.6	- 12.1	- 4.3
Norfolk and Suffolk	113.9	+ 2.6	- 2.5
Essex	120.4	- 0.4	+ 1.3
Lee Division	111.3	- 4.2	- 1.9
Thames Conservancy	101.3	- 4.9	- 5.6
London Area	87.5	- 2.5	+ 0.7
Kent	85.0	- 2.3	- 0.4
Sussex	69.1	+ 1.8	- 2.2
Hampshire	82.6	- 7.6	- 7.9
Isle of Wight	117.0	+ 11.3	- 10.4
Upper Thames	106.4	- 4.4	- 9.8
Avon and Dorset	83.2	- 7.9	+ 1.8
Devon	57.2	+ 2.9	+ 1.0
Cornwall	57.5	+ 4.1	- 2.2
Somerset	77.2	- 0.8	+ 7.3
Bristol Avon	109.1	+ 0.6	- 3.7
Severn	73.1	- 1.7	- 18.4
Wye	66.9	- 0.6	- 15.6
Usk	48.9	+ 1.5	- 9.2
Glamorgan	25.7	+ 1.1	- 8.0
South West Wales	29.5	- 1.4	- 20.7
Gwynedd	45.4	- 3.6	- 13.8
Dee and Clwyd	46.1	- 2.4	- 11.7
Mersey and Weaver	45.0	- 5.0	- 17.9
Lancashire	30.4	- 2.0	- 16.3
Cumbria	5.6	- 17.0	- 8.0

N.B. Apart from normal changes these differences also reflect retrospective adjustments after receipt of additional data.

