



## METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT AND POTENTIAL  
EVAPOTRANSPIRATION OVER GREAT BRITAIN

SOIL MOISTURE DEFICIT AT 0900 GMT ON 27 MAY 1981

The generally unsettled weather, apparent since the severe wintry spell of 24-26 April, has continued right up to date. In the most recent fortnight, rain has fallen on most days - on every day in some places. Precipitation has occurred mainly as showers, some of them thundery. Nevertheless, amounts have not been generally large and, in some places in northern Britain, totals for the fortnight have been rather low. The most widespread heavy rain fell on 15 May, when more than 12 mm was recorded over the Pennines, much of Wales and southwest England. General rainfall over England and Wales for May up to 25th is 83 mm, about one-and-a-half times the average for the period. Although there are a few days yet to go, there have been many Mays with higher totals for the month, the most recent being in 1979 (123 mm). In Scotland, rainfall for May 1981, so far, is about average.

The maps show one of the most unusual distributions in the 20 years series with soils at capacity over a large part of southern central England, at a time when deficits should be increasing rapidly, and near capacity over much of Britain south of a line from Mersey to Wash. Central Lowlands and much of eastern Scotland, on the other hand, have very high deficits for the time of the year, with deficits approaching 100 mm for short rooted vegetation along the coast of the Moray Firth.

Mean deficits for areal land use over the River Divisions have shown a steady decline (ie soils are refilling with water) since the mid April peak (Northumbrian is the only exception to the decline) and over all Divisions from Severn-Great Ouse southwards, 1981 values are the lowest for end of May since areal comparisons began in 1963. In Scotland, mean deficits for areal land use were well below average for time of year in Solway and Clyde RPB's but were more than average over other areas and were more than twice the average in North East.

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.)  
AT 09 GMT ON 27 MAY 1981

River Area	Areal Land Use	Change during the week ending 09 GMT on	
	Estimated S.M.D. mm	27 May 1981 mm	20 May 1981 mm
Northumbrian	24.0	+ 2.0	+ 8.4
Yorkshire	16.8	+ 0.3	+ 7.2
Trent	5.0	- 2.5	+ 1.3
Lincolnshire	12.5	- 5.4	+ 9.2
Welland and Nene	3.6	- 4.4	+ 2.1
Great Ouse	4.1	- 4.5	+ 0.8
Norfolk and Suffolk	8.4	- 4.8	+ 7.2
Essex	12.9	- 4.0	+ 2.5
Lee Division	4.2	- 5.5	- 1.0
Thames Conservancy	0.9	- 2.0	- 6.7
London Area	4.5	- 5.9	- 3.1
Kent	12.4	- 4.0	- 3.7
Sussex	5.1	- 2.2	- 6.3
Hampshire	2.7	+ 0.2	- 5.2
Isle of Wight	2.6	+ 2.5	- 7.4
Upper Thames	0.4	- 2.4	- 11.6
Avon and Dorset	2.8	- 1.3	- 9.7
Devon	1.2	+ 0.6	- 6.3
Cornwall	0.2	+ 0.2	- 6.0
Somerset	4.4	- 0.3	- 8.9
Bristol Avon	3.3	- 1.2	- 11.1
Severn	1.9	- 1.2	- 6.9
Wye	1.7	- 1.4	- 7.9
Usk	1.7	- 3.0	- 6.9
Glamorgan	1.7	- 9.6	- 8.3
South West Wales	2.5	- 4.8	- 8.6
Gwynedd	8.5	- 1.8	- 3.1
Dee and Clwyd	9.6	- 2.4	- 0.4
Mersey and Weaver	8.1	- 2.8	+ 1.5
Lancashire	5.7	- 0.7	+ 1.6
Cumbria	14.7	- 1.5	+ 7.0

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

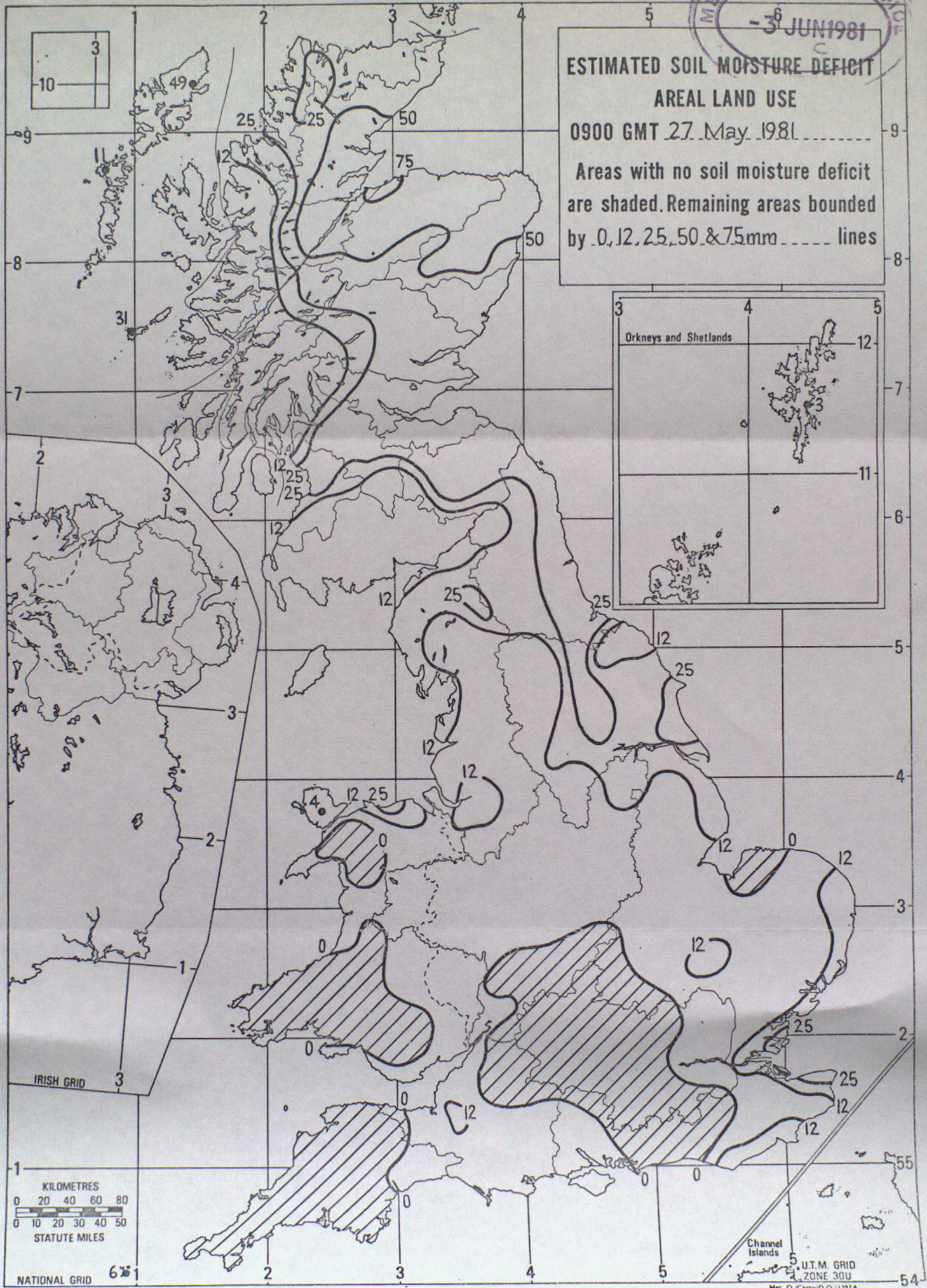


METEOROLOGICAL OFFICE  
- 3 JUN 1981

**ESTIMATED SOIL MOISTURE DEFICIT  
AREAL LAND USE**

0900 GMT 27 May 1981

Areas with no soil moisture deficit are shaded. Remaining areas bounded by 0, 12, 25, 50 & 75 mm lines

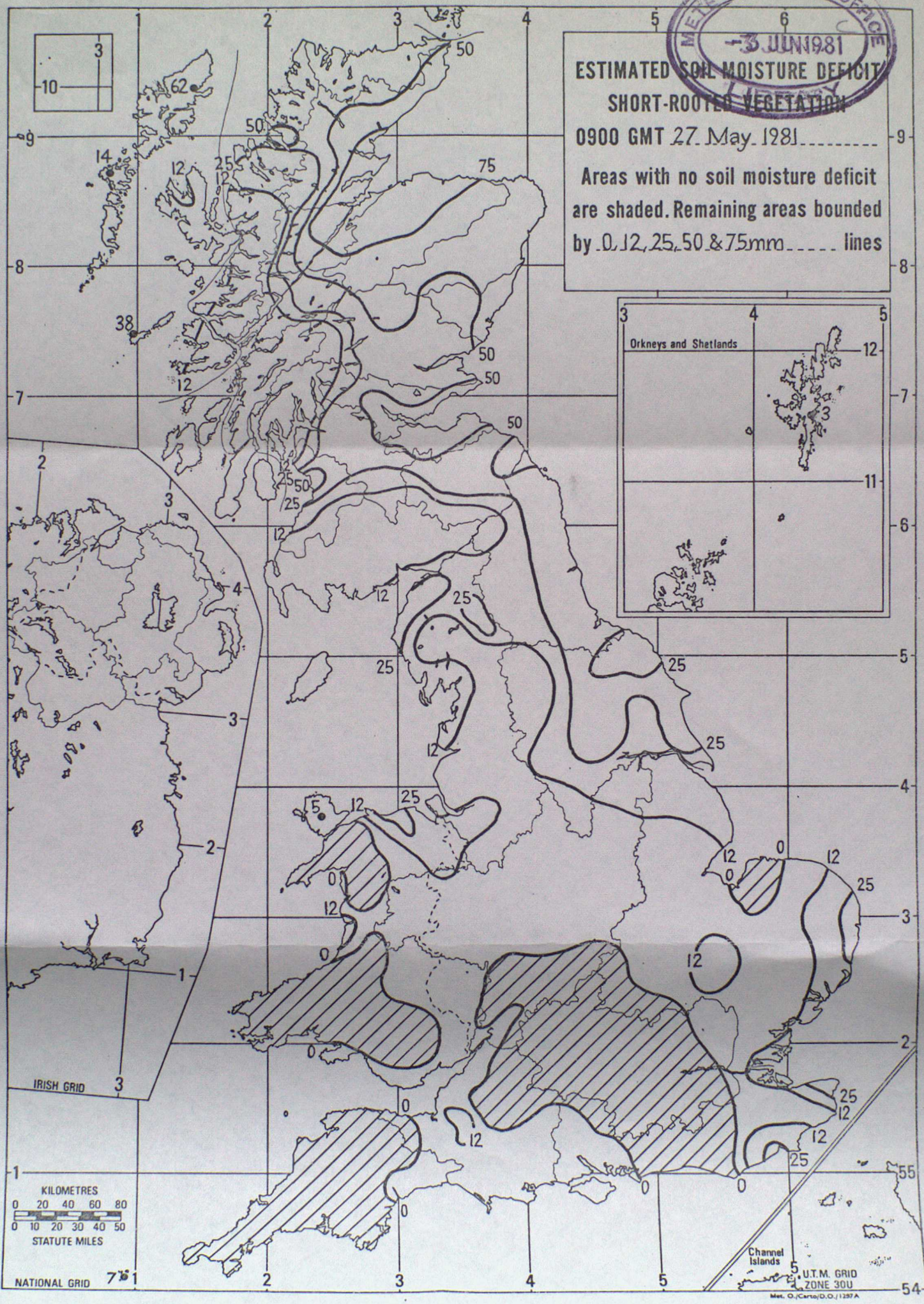


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METEOROLOGICAL OFFICE  
 -3 JUN 1981  
 ESTIMATED SOIL MOISTURE DEFICIT  
 SHORT-ROOTED VEGETATION  
 0900 GMT 27 May 1981

Areas with no soil moisture deficit are shaded. Remaining areas bounded by .0, 12, 25, 50 & 75mm . . . . lines



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