

METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT AND POTENTIAL
EVAPOTRANSPIRATION OVER GREAT BRITAIN



SOIL MOISTURE DEFICIT AT 0900 GMT ON 2 AUGUST 1978

Following the issue of the previous bulletin (13 July 1978), weather remained generally dry up to 21st, particularly over England and Wales where only slight amounts of rain occurred here and there. Rainfall occurred more frequently in Scotland but was again mainly light, except in the extreme north-west. Rain reached western and northern areas on 22nd and spread to all areas on 23rd, the heaviest falls occurring in west Midlands and south west Wales. The 25th was wet over northern Britain, particularly in southern Scotland (it was probably the wettest day of the month over Scotland generally), and the 27th was a very wet day over south-west England and South Wales. The last three days of July were particularly wet over Britain as far north as the north Midlands; 25 mm was exceeded at many places in the south and Midlands on 29th and again on 31st where reports of rainfall exceeding 75 mm were received for the Isle of Wight. The general rainfall for 31st over England and Wales is estimated to have exceeded 20 mm, a rare event. The last few days of July were much drier over Scotland, apart from a fall of 26 mm at Lerwick on 30th. The very unsettled wet weather continued on 1 August in southern Britain, with falls particularly heavy in southern central England. Further heavy rain on 2 August in southern Britain will have reduced soil moisture deficits below the levels shown on the maps in many areas.

Over most of England and Wales, deficits have been reduced sharply in the past week (in the north the reduction is slight and there has even been a slight increase in Cumbria generally). In hilly parts of Wales and south-west England, soils have been restored to capacity. Over Scotland deficits are much as they were three weeks ago, with highest deficits in Britain to the south of the Moray Firth.

Over the former River Authority areas, general values were above average for Northumbria, Gwynedd and north-west England, with values well above average in Cumbria. Elsewhere, values were mainly between two-thirds and three-quarters of average, with less than half the average in Norfolk and Suffolk, Hampshire and Usk. In Scotland, general values are well above average in Solway, Clyde, Highlands and Tweed RPB areas, are about average in Tay and Firth and are 13 per cent below average in North East.

RATES OF SUBSCRIPTION: £15.00 per season (post free)

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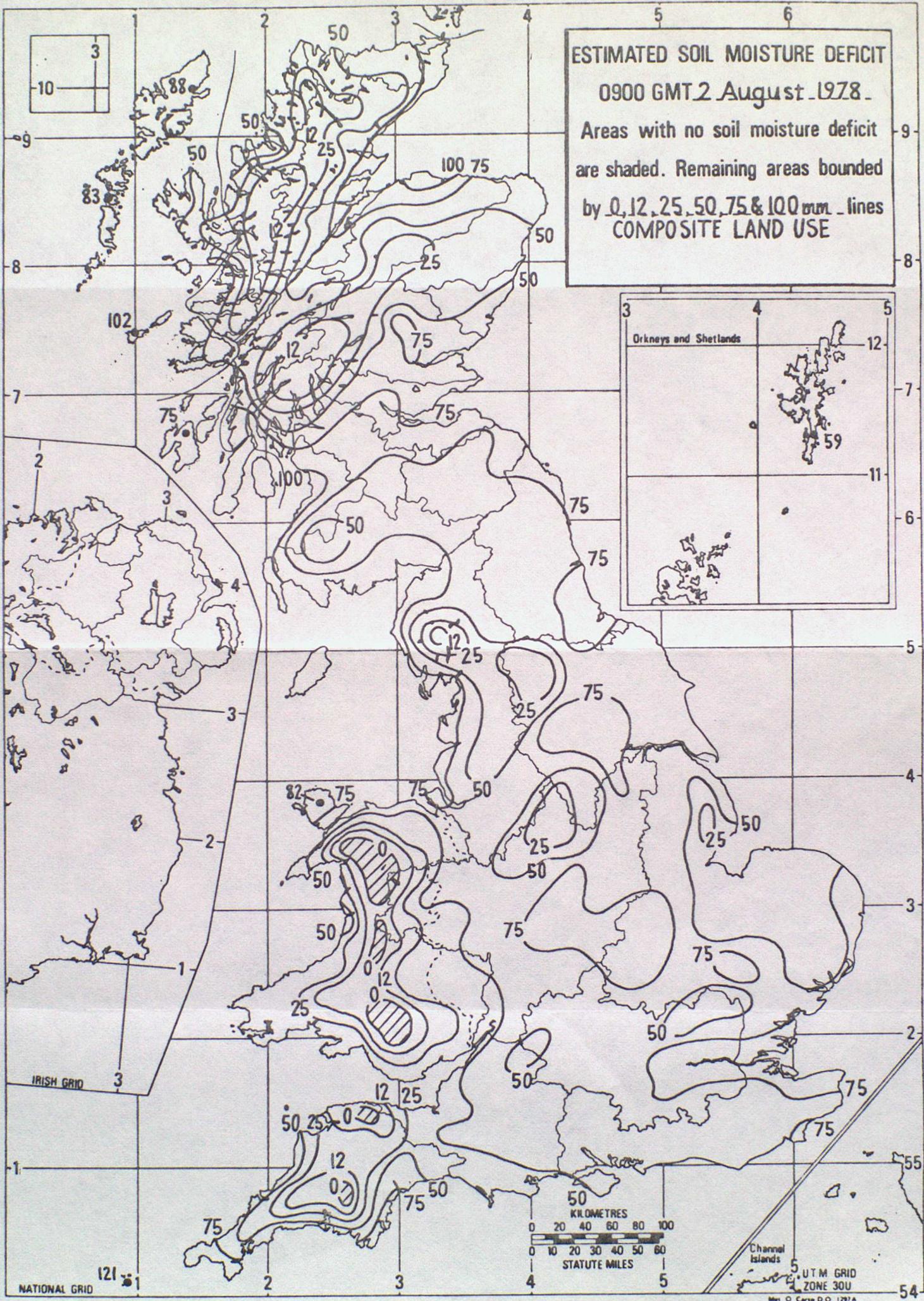
Issued on 3 August 1978

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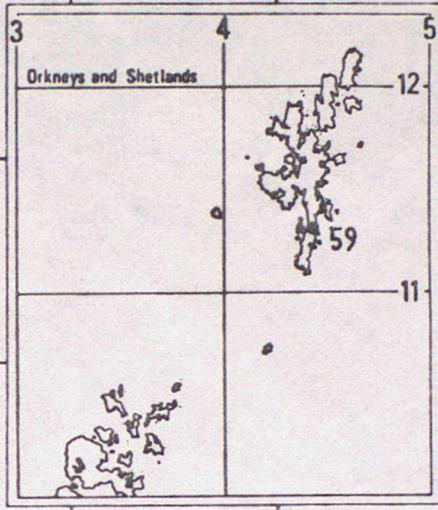
ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.)
AT 09 GMT ON 2 AUG 1978

River Area	Estimated Areal	Change during the week ending 09 GMT on		
	S.M.D. mm	2 Aug 78 mm	26 Jul 78 mm	19 Jul 78 mm
Northumbrian	74.3	- 7.4	+ 7.3	+ 12.9
Yorkshire	62.2	- 18.9	+ 5.1	+ 14.0
Trent	54.4	- 15.5	- 0.1	+ 17.0
Lincolnshire	58.8	- 9.6	+ 4.3	+ 24.2
Welland and Nene	64.8	- 12.8	+ 5.8	+ 19.7
Great Ouse	58.7	- 22.2	+ 9.3	+ 15.5
Norfolk and Suffolk	48.3	- 23.7	+ 13.0	+ 16.4
Essex	69.2	- 29.3	+ 8.5	+ 14.3
Lee Division	65.3	- 25.8	+ 6.2	+ 18.2
Thames Conservancy	58.8	- 30.3	+ 2.7	+ 12.4
London Area	76.6	- 25.9	+ 4.8	+ 8.7
Kent	73.2	- 25.9	+ 4.3	+ 10.0
Sussex	63.0	- 37.7	+ 3.8	+ 9.7
Hampshire	45.5	- 39.7	- 0.6	+ 7.5
Isle of Wight	61.5	- 43.9	+ 0.4	+ 6.7
Upper Thames	61.8	- 36.6	+ 0.2	+ 13.2
Avon and Dorset	52.2	- 45.5	- 4.4	+ 8.6
Devon	43.9	- 25.1	- 10.0	+ 15.9
Cornwall	51.1	- 13.3	- 9.0	+ 18.1
Somerset	44.1	- 40.8	- 7.3	+ 8.0
Bristol Avon	54.7	- 41.4	- 4.1	+ 9.9
Severn	57.5	- 23.8	- 5.0	+ 13.6
Wye	45.1	- 35.9	- 9.1	+ 18.3
Usk	25.4	- 34.9	- 14.6	+ 16.5
Glamorgan	22.7	- 24.5	- 17.2	+ 17.3
South West Wales	36.1	- 32.1	- 12.6	+ 16.6
Gwynedd	43.5	- 7.8	- 13.3	+ 18.4
Dee and Clwyd	39.0	- 4.6	- 12.6	+ 16.4
Mersey and Weaver	54.0	- 8.2	- 1.3	+ 17.5
Lancashire	52.6	- 10.8	- 3.1	+ 18.3
Cumbria	77.6	+ 0.1	- 2.6	+ 16.7

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

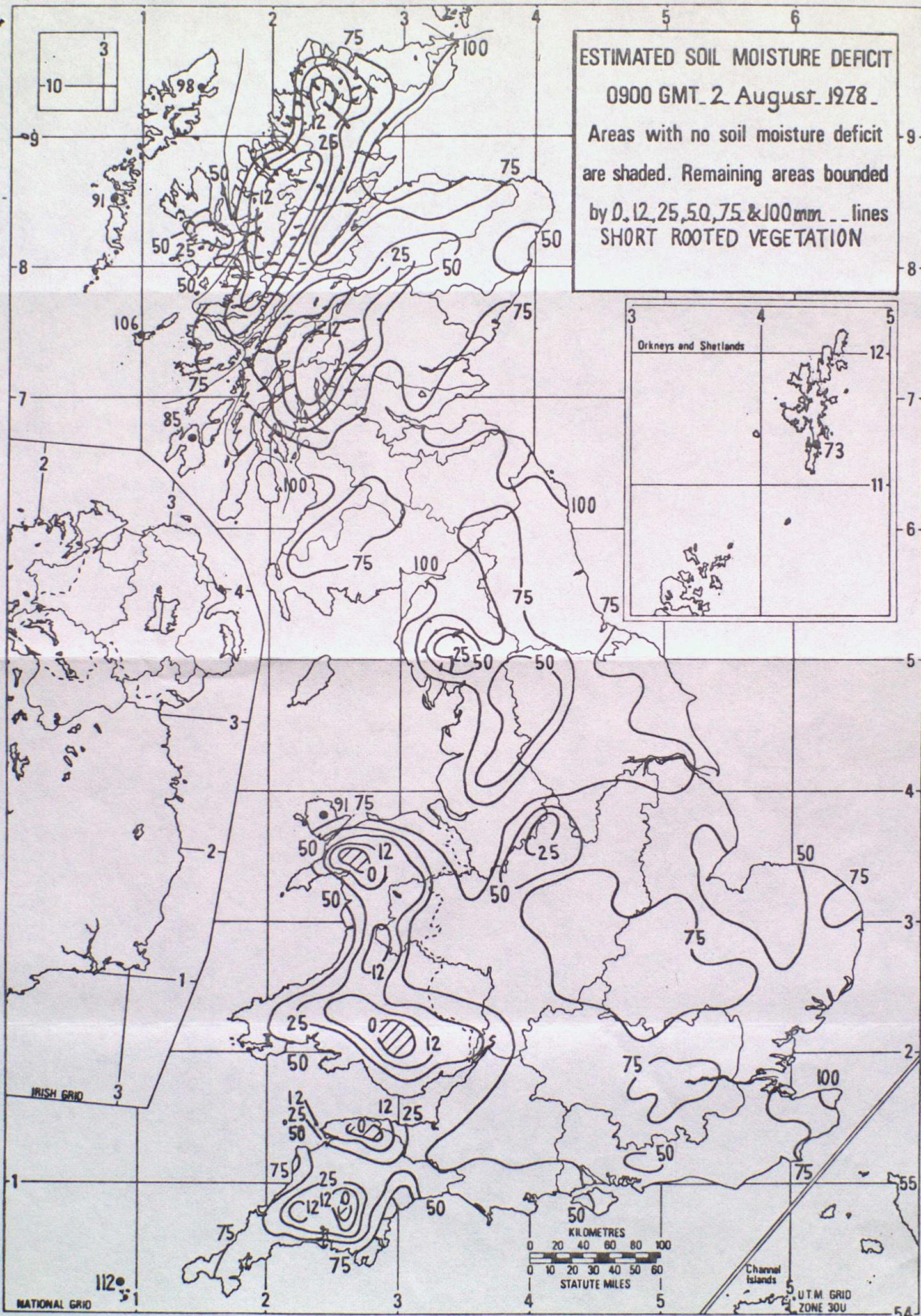


ESTIMATED SOIL MOISTURE DEFICIT
 0900 GMT 2 August 1978.
 Areas with no soil moisture deficit
 are shaded. Remaining areas bounded
 by 0, 12, 25, 50, 75 & 100 mm. lines
 COMPOSITE LAND USE

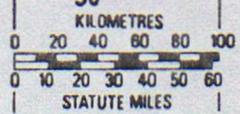
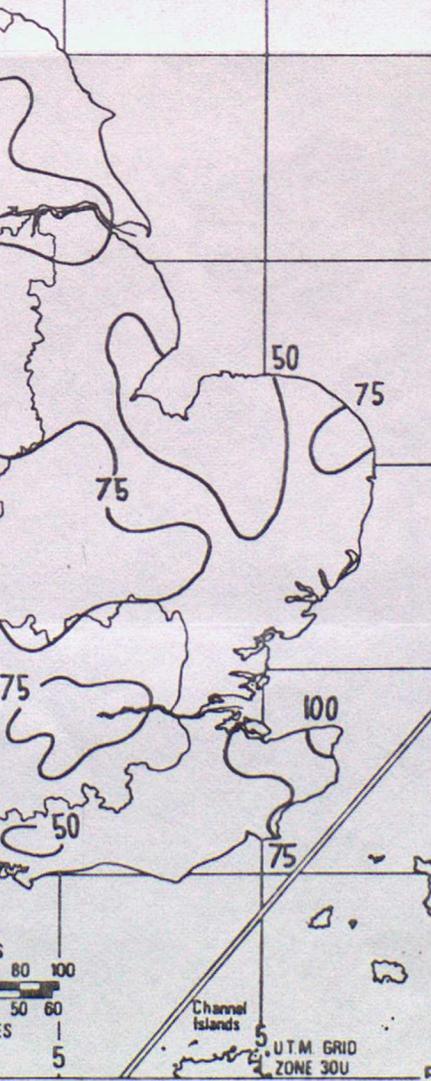
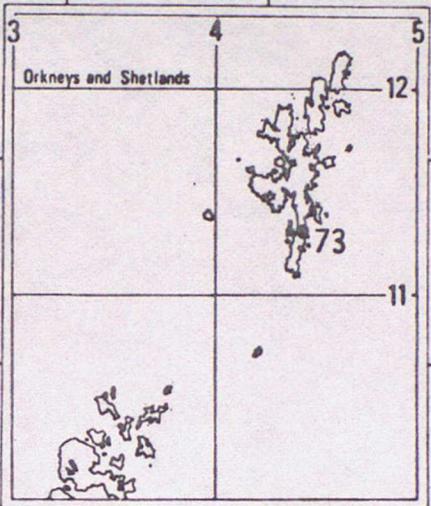


Channel Islands
 UTM GRID
 ZONE 30U
 Map © Crown D.O. 1297A

IRISH GRID
 NATIONAL GRID



ESTIMATED SOIL MOISTURE DEFICIT
 0900 GMT. 2 August 1978.
 Areas with no soil moisture deficit
 are shaded. Remaining areas bounded
 by 0, 12, 25, 50, 75 & 100 mm. . . lines
 SHORT ROOTED VEGETATION



NATIONAL GRID 112° 51'

U.T.M. GRID ZONE 30U
 Map O Corps DO 129/A