

METEOROLOGICAL OFFICE

ESTIMATED SOIL MOISTURE DEFICIT AND POTENTIAL
EVAPOTRANSPIRATION OVER GREAT BRITAIN

SOIL MOISTURE DEFICIT AT 0900 ON 9 DECEMBER 1981

The last 6 days of November were mainly unsettled although amounts were small over central and southern England. Heavy rain fell on 25th over northwest Scotland (40 mm at Skye) and on 26th, when more than 20 mm was reported over much of western and southern Scotland and the high ground of Wales and northwest England. On 27th thunderstorms occurred as far afield as Glasgow and Gatwick Airport but no exceptional falls were reported. The 29th was another day of fairly heavy rainfall over northern Scotland with over 30 mm in the extreme northwest. Although rainfall was widespread on 30th, only in the Manchester area and the moors of southwest England were there reports of more than 10 mm.

December started mainly dry and remained so over much of central and southern England up to 6th. The 3rd, however, was a wet day over Scotland and northern England when more than 10 mm was recorded over the southern Pennines and much of northwest Scotland. Wintry precipitation, albeit rather small amounts, affected northern Scotland on 3rd and 4th but had spread as far south as northern England by 6th, when there was also rainfall exceeding 10 mm reported over south Wales and the high ground of southwest England.

A depression moving east across south Wales and southern England on 8th gave fairly heavy rain over much of the South West but also a fairly extensive band of snow through central Wales and central England. Precipitation totals of between 10 and 25 mm were reported over the 2 day period of 7th and 8th with measured snow depths of around 5 cm. Much of northern England and Scotland, apart from coastal regions, were dry for these last 2 days of the period.

Rainfall (or equivalent rainfall) for the fortnight varied from less than 50% of average in south Cornwall and Devon to more than 150% of average in northern Scotland. Most of England and Wales had less than average although it was exceeded in parts of Somerset, East Anglia and the North West.

Over all River Divisions mean deficits have either remained at zero or have been reduced during the last fortnight. Despite the reductions, the divisions bordering the east coast still have above the seasonal average values, with Lincolnshire having more than twice the average.

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Issued 10 December 1981

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ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.) AT 09 GMT ON 9 DECEMBER 1981.

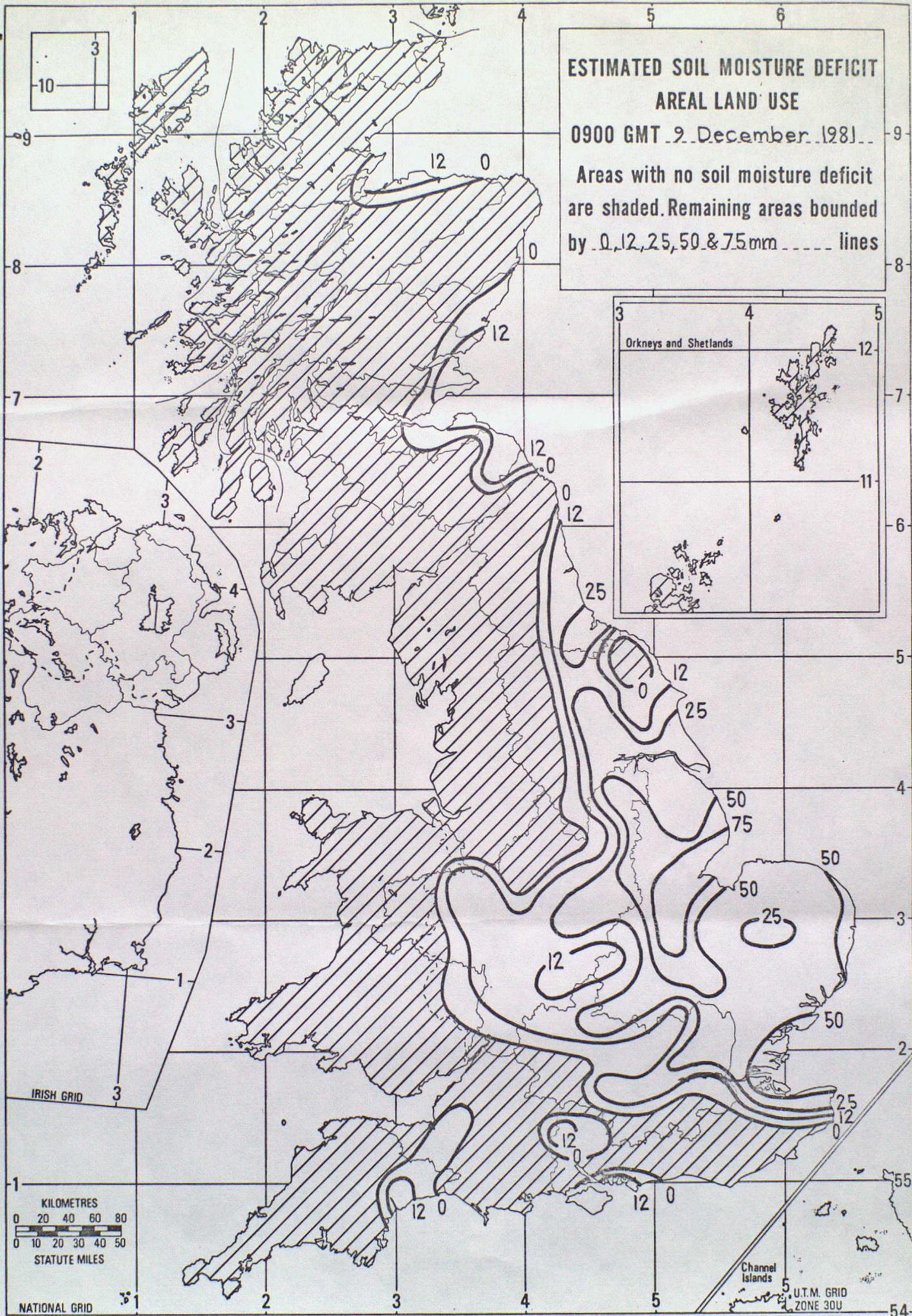
RIVER AREA	AREAL LAND USE ESTIMATED S.M.D. MM	CHANGE DURING THE WEEK ENDING 09 GMT ON	
		9 DEC 81 MM	2 DEC 81 MM
NORTHUMBRIAN	10.6	+ 0.4	- 3.7
YORKSHIRE	16.4	- 2.5	- 7.5
TRENT	19.6	+ 0.1	- 5.5
LINCOLNSHIRE	66.0	+ 2.5	-11.4
WELLAND AND NENE	39.9	+ 4.2	- 9.3
GREAT OUSE	31.7	- 3.5	- 7.3
NORFOLK AND SUFFOLK	42.8	- 5.0	-10.3
ESSEX	42.8	- 7.0	- 1.7
LEE DIVISION	20.3	- 3.4	- 1.8
THAMES CONSERVANCY	9.6	- 4.6	- 3.0
LONDON AREA	5.9	- 2.8	- 1.6
KENT	8.4	- 3.0	- 2.1
SUSSEX	0.0	- 0.1	0.0
HAMPSHIRE	3.6	- 1.5	- 1.6
ISLE OF WIGHT	6.5	- 2.8	- 2.0
UPPER THAMES	11.5	- 4.7	- 3.9
AVON AND DORSET	3.1	- 1.3	- 2.3
DEVON	3.2	- 0.6	- 0.8
CORNWALL	0.0	0.0	0.0
SOMERSET	1.3	- 3.3	- 2.9
BRISTOL AVON	1.2	- 3.5	- 2.4
SEVERN	8.2	- 2.6	- 2.6
WYE	2.0	- 0.7	- 0.8
USK	0.0	- 0.1	+ 0.1
GLAMORGAN	0.0	- 0.1	+ 0.1
SOUTH WEST WALES	0.0	- 0.1	+ 0.1
GWYNEDD	0.0	- 0.1	+ 0.1
DEE AND CLWYD	0.0	- 0.1	+ 0.1
MERSEY AND WEAVER	0.0	- 0.1	+ 0.1
LANCASHIRE	0.0	- 0.1	+ 0.1
CUMBRIA	0.1	0.0	+ 0.1

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

ESTIMATED SOIL MOISTURE DEFICIT AREAL LAND USE

0900 GMT 9 December 1981

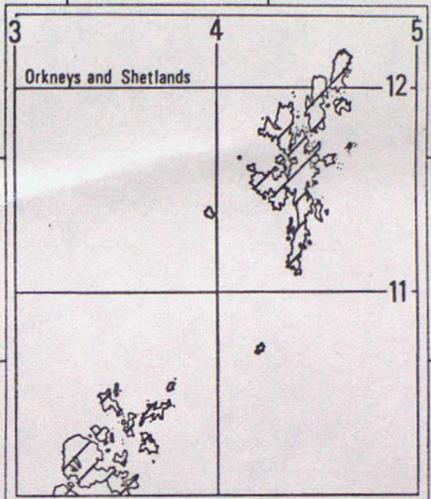
Areas with no soil moisture deficit are shaded. Remaining areas bounded by 0, 12, 25, 50 & 75 mm --- lines



IRISH GRID

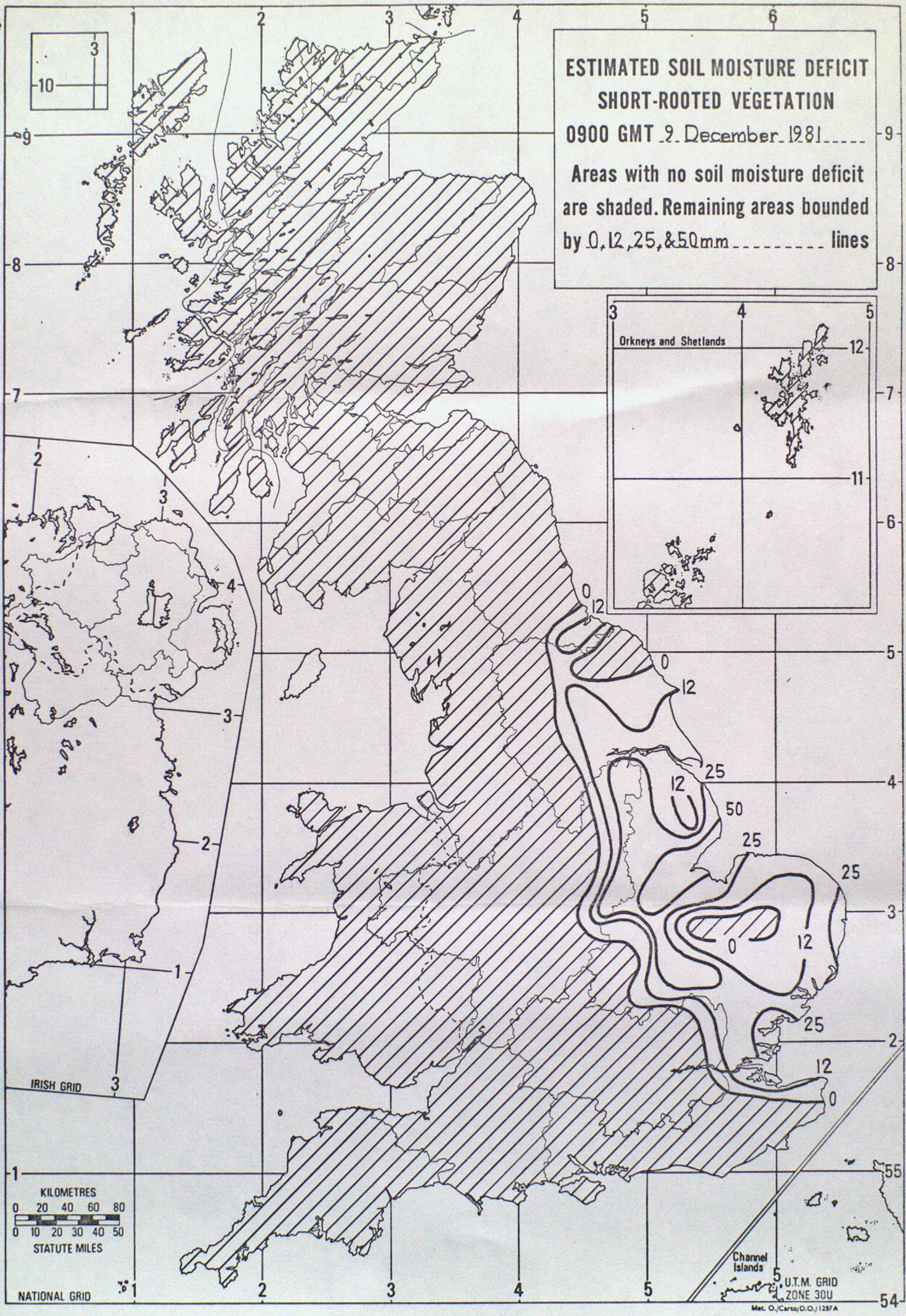
KILOMETRES
0 20 40 60 80
STATUTE MILES
0 10 20 30 40 50

NATIONAL GRID



Channel Islands
U.T.M. GRID
ZONE 30U

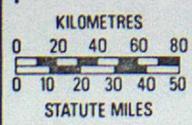
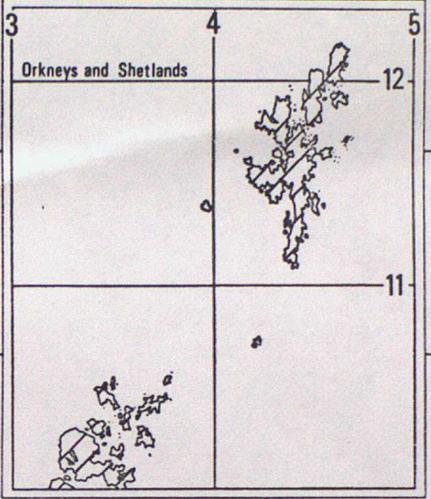
Met. O. Carto/D.O./1297A



**ESTIMATED SOIL MOISTURE DEFICIT
SHORT-ROOTED VEGETATION**

0900 GMT 9 December 1981

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



NATIONAL GRID

Channel Islands
U.T.M. GRID
ZONE 30U
Met. O./Carto/D.O./1297A