

## METEOROLOGICAL OFFICE

## ESTIMATED SOIL MOISTURE DEFICIT OVER GREAT BRITAIN

AT 0900 GMT ON 12 OCTOBER 1977

Following the issue of the previous bulletin (28 September 1977) the weather over Great Britain has been generally unsettled throughout the period (28 September to 12 October). The only mainly dry days were 2nd and 10 October with 28th and 29 September also being mainly dry over England and Wales (except in the North West on 29th). Scotland was particularly wet during the period, whilst amounts of rain over England and Wales were generally smaller, apart from 5 October when large falls were recorded oversouthwest Cornwall. Thunderstorms occurred in parts of eastern England on 1st and central southern England and South Wales on 7th and 8 October. The wettest day over England and Wales was 5 October but over Scotland 29th and 30 September and 3rd, 5th, 7th and 11 October were all very wet. Falls of 15mm or more occurred at Eskdalemuir, Dumfries (27mm) on 29th, Ringway, Manchester (22mm) on 30 September, Carlisle (30mm) on 3rd, Culdrose, Cornwall (82mm) on 5th, Edinburgh (22mm) on 6th, Leuchars, Fife (39mm) on 7th and Benbecula, Western Isles (36mm) on 11 October.

Over virtually the whole of Great Britain deficits have been decreasing throughout the period, more especially over Scotland and the western half of England and Wales. Small increases in deficits occurred however over the south east of England during the first week. Areas previously at field capacity have been enlarged, especially over Scotland; parts of Cornwall returned to field capacity and field capacity was also reached in south west Wales for ground with short rooted vegetation. Over parts of Hampshire, Wiltshire, Avon and Dorset composite land use deficits are still below average for the time of year, whilst the rest of England and Wales has deficits near to or generally above average, more especially over east and north east England. The largest deficits are at Lowestoft and Shoeburyness (120 and 130mm respectively, for both short rooted vegetation and composite land use).

RATES OF SUBSCRIPTION: £10.00 per season (post free)

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Issued 13 October 1977

ESTIMATED SOIL MOISTURE DEFICIT (S.M.D.) AT 09 GMT ON 12 OCT 1977

| River Area          | Estimated Areal | Change during the Week Ending 09 GMT on |                |
|---------------------|-----------------|---|----------------|
|                     | S.M.D.<br>MM    | 12 OCT 77<br>MM                         | 5 OCT 77<br>MM |
| Northumbrian        | 59.9            | - 10.1                                  | - 13.4         |
| Yorkshire           | 80.8            | - 2.2                                   | - 13.4         |
| Trent               | 86.8            | - 4.3                                   | - 10.4         |
| Lincolnshire        | 116.7           | - 1.3                                   | - 1.8          |
| Welland and Nene    | 94.4            | - 7.3                                   | - 0.7          |
| Great Ouse          | 83.1            | - 5.7                                   | 0.0            |
| Norfolk and Suffolk | 111.9           | - 2.1                                   | - 1.5          |
| Essex               | 109.8           | - 1.8                                   | + 0.8          |
| Lee Division        | 91.4            | - 9.3                                   | + 1.7          |
| Thames Conservancy  | 57.3            | - 10.0                                  | + 1.3          |
| London Area         | 65.1            | - 16.1                                  | + 2.1          |
| Kent                | 99.5            | - 5.6                                   | + 2.0          |
| Sussex              | 75.3            | - 10.9                                  | + 1.4          |
| Hampshire           | 33.4            | - 13.8                                  | + 1.3          |
| Isle of Wight       | 103.7           | - 12.1                                  | + 2.6          |
| Upper Thames        | 38.7            | - 5.1                                   | + 1.6          |
| Avon and Dorset     | 20.8            | - 12.5                                  | + 0.1          |
| Devon               | 61.9            | - 4.4                                   | - 0.5          |
| Cornwall            | 24.2            | - 16.5                                  | - 1.3          |
| Somerset            | 50.4            | - 6.0                                   | - 1.7          |
| Bristol Avon        | 41.0            | - 5.8                                   | - 1.7          |
| Severn              | 54.9            | - 8.2                                   | - 4.4          |
| Wye                 | 58.6            | - 5.5                                   | - 9.1          |
| Usk                 | 43.0            | - 3.6                                   | - 6.6          |
| Glamorgan           | 38.0            | - 12.4                                  | - 4.3          |
| South West Wales    | 16.5            | - 26.3                                  | - 12.7         |
| Gwynedd             | 29.6            | - 9.7                                   | - 10.2         |
| Dee and Clwyd       | 48.2            | - 4.5                                   | - 10.8         |
| Mersey and Weaver   | 56.3            | - 4.6                                   | - 30.5         |
| Lancashire          | 29.7            | - 3.8                                   | - 21.6         |
| Cumbria             | 10.3            | - 8.0                                   | - 25.1         |

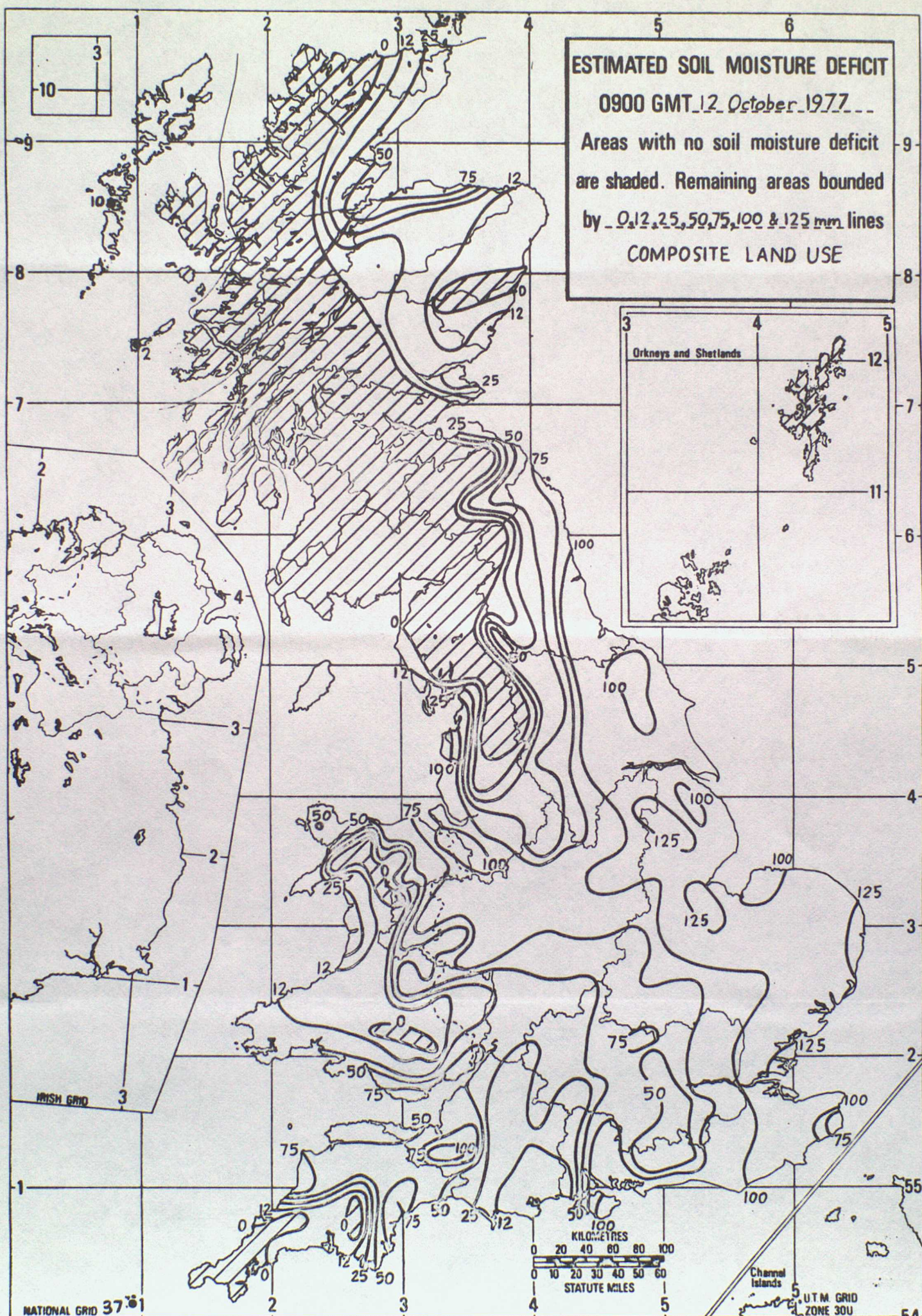
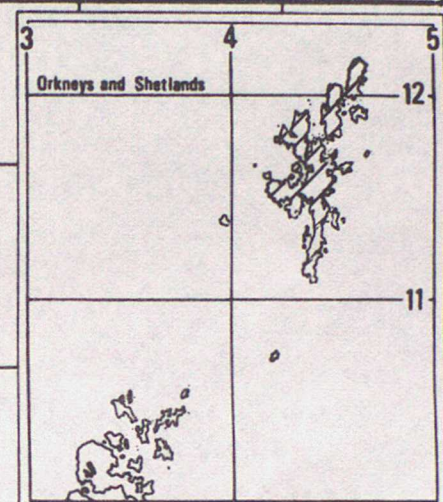
NB Apart from Normal changes these differences also reflect retrospective adjustments after receipt of additional data.

# ESTIMATED SOIL MOISTURE DEFICIT

0900 GMT 12 October 1977

Areas with no soil moisture deficit are shaded. Remaining areas bounded by 0, 12, 25, 50, 75, 100 & 125 mm lines

COMPOSITE LAND USE



**ESTIMATED SOIL MOISTURE DEFICIT**  
**0900 GMT 12 October 1977**

Areas with no soil moisture deficit are shaded. Remaining areas bounded by 0, 12, 25, 50, 75 & 100 mm lines  
 SHORT ROOTED VEGETATION

