JULY 1997

The complex area of low pressure which had dominated the weather at the end of June was still much in evidence during the first few days of July. An occluded front crossed the region on the 1st giving a cloudy and cool day with frequent showers.

Both the 2nd and 3rd were under the influence of this large area of low pressure which moved slowly northwards in the southern part of the North Sea, filling as it did so. Occluded fronts continued to cross the Midlands though the 2nd was a somewhat better day with a little sunshine . The 3rd, however, saw frequent and often heavy showers which produced 6.5mm of rain and a maximum temperature of just 16.3C.

By the 4th a ridge was building across the southern parts UK from the Azores High and this gradually killed off the shower activity giving a day of increased sunshine with 7.3 hours and a maximum of 19.6C. This ridge continued to build over the next week giving more settled and sunnier weather with daytime temperatures gradually rising to a peak of 26.7C on the 9th when thunder was heard around 1500 hours.

Days were hot and humid with early morning stratus from the North Sea taking well into the mornings to burn back. Sunshine totalled 14.4 hours on the 8th, though most days saw in the region of 8 hours due to these early cloud sheets. After such a wet June no measurable rain was noted from the 4th to the 11th inclusive, the driest interlude since the last week in May. However, other areas of the country, including parts of the Midlands, saw heavy falls from localised thunderstorms.

The high pressure system over Scandinavia on the 11th was collapsing and moving NW with a low developing over SW Ireland. This gave a day of sunny spells and localised heavy showers on the 12th with a maximum temperature as high as 23.4C.. This area of low pressure over Ireland propelled a weak front eastwards over the UK on the 13th giving a spell of light rain, though temperatures remained in the low 20's.

A depression had formed to the NW of Scotland by the 14th and its associated fronts moved into Ireland from the Atlantic and crossed the UK over the next 24 hours giving 2.1mm of rain. The period 15th to 18th was dominated by low pressure and attendant fronts which maintained a humid and very warm SW to S air stream over the country. Spells of light rain occurred over the Midlands on the 15th and 16th with a heavier fall on the morning of the 17th as a further trough crossed the region. Sunshine totals were still depressed though it remained warm with temperatures in the low to mid 20's if rather humid.

By the 18th the low pressure had all but filled as a building ridge edged in from the Azores high to form its own centre to the north west of Scotland. This gave a dry, if rather cloudy, day with brief sunshine and temperatures barely into the 20's.

The intensifying anticyclone persisted over, or near, the Norwegian Sea until the 21st giving progressively hotter days over central England with prolonged sunshine. Maximum temperatures reached 26.2C on the 20th with 14.7 hours sunshine under the influence of a slack NE'ly air flow. By the 22nd some cloud was encroaching into eastern England from a depression over Denmark whilst the spell of prolonged and heavy rainfall continued over eastern Europe giving the worst floods there this century.

The 23rd saw this depression over Humber moving north and filling and introducing a WNW airflow with embedded showers and some scattered thunderstorms over eastern England. The West Midlands experienced humid conditions with light showers. A spell of more general rain crossed the region between 0045 and 0610 on the 24th to be followed by a day of intermittent, though light, rain. A split cold front crossed the area at 1612 as it moved south eastwards giving a short spell of very heavy rain, though no thunder was heard. In all 5.6mm of rain was recorded.

With low pressure around the UK the next few days saw spells of light rain and sunny periods. An intensifying ridge from the Azores high gave a warm day on the 27th with 12.7 hours of sunshine. How be it, pressure remained low to the NW of the British Isles sweeping weak fronts across Scotland and northern Britain on the 28th, the bulk of the UK remaining dry, though cloudy and warm, with temperatures of 23.9C mid afternoon.

The synoptic situation remained basically unsettled for the remainder of the month with a depression to the north west of Scotland whose associated fronts crossed the UK on successive days. One cold front passed during the late evening of the 29th producing a fall of 2.9mm of mainly light rain. This was followed on the 30th by a day of broken cloud with good sunny periods and a maximum temperature of 22.2C. As the attendant depression crossed from Fair Isle to Denmark on the 31st a further front crossed the region bringing a spell of mainly light rain and the only day of the month to record nil sunshine.

SUMMARY

With sunshine standing at 125% of the 30 year mean and all temperatures up on normal, July was a relatively good summer month. After the very wet June rainfall was significantly down at 62% of average with 11 days showing measurable rain. In contrast, 12 days recorded more than 9 hours sunshine each with 5 days producing in excess of 12 hours each, both well above expectation.

Five days were hot with maximum temperatures in excess of 25C (77F), the best being the 9th with 26.7C. All soil and earth temperatures continued well above average the greatest by as much as 9C for the surface.

Solar radiation levels continued high, peaking at a daily level of 7.89kw/sq m on the 8th with a maximum radiation temperature of 56.3C on the 22nd.

Thunder was heard once, on the 9th, though there was no incidence of hail during the month.