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1999



INSIDE

| | | | | | | | |
|-------------------|----|---------------|----|------------------|----|---------------|----|
| Weather..... | 2 | Rainfall..... | 6 | Temperature..... | 8 | Sunshine..... | 9 |
| Marine/Agmet..... | 10 | Features..... | 12 | Diary..... | 14 | Tables..... | 16 |

WARM BUT GENERALLY DULL, HEAVY DOWNPOURS IN PLACES

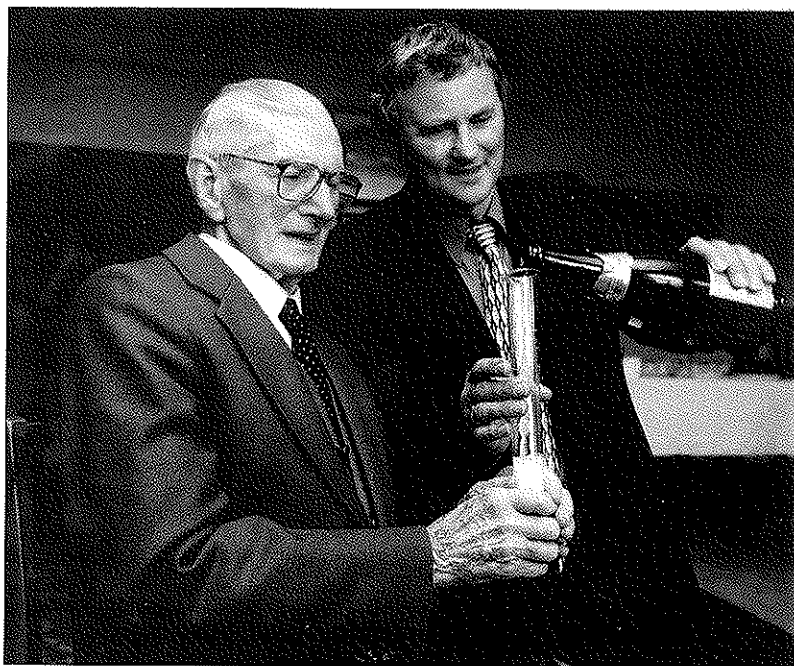
Cover
Parachuting in to the
Dublin Flutag competition
for man-powered flying
machines on the 22nd.
(picture Peter Lennon)

Although there was fine weather at times during the month, the weather of August was mainly influenced by areas of low pressure, giving spells of locally heavy rain or showers, particularly in the south. Some of this rain was accompanied by severe thunderstorm activity, leading to reports of tornadoes from a number of locations during the month. Temperatures were above normal for most of the month, particularly during the first week, but sunshine was below normal almost everywhere.

The very warm, sunny weather of late July extended into the 1st of this month in most places, but the first of the month's frontal troughs was already approaching the west coast. These bands of thundery rain or showers became slow-moving over the country over the

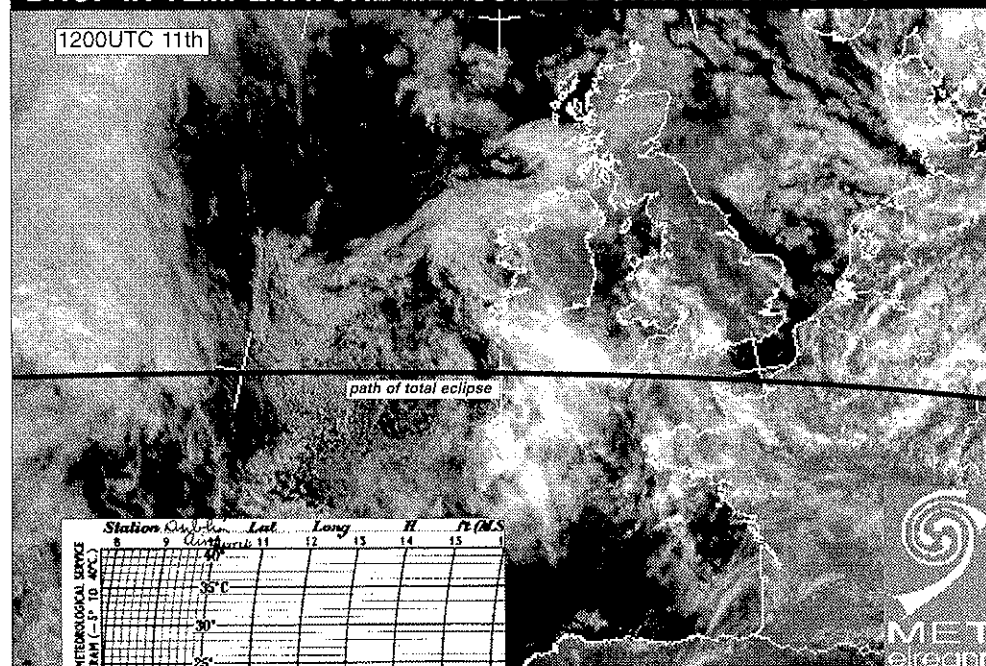
following days as the associated depression lay just off the southwest coast. Rain was particularly heavy in the south and east between the 4th and 6th, where falls of over 50mm were measured for the period, while a tornado struck the Sligo village of Ballisodare on the 6th. Southeasterly winds between the 2nd and 6th maintained a very warm and humid airmass over the country, but as the depression moved slowly southeastwards, winds backed to a cooler northeasterly direction by the 8th. Showers became more isolated between the 7th and 9th and a weak ridge on the 10th gave a dry, sunny day everywhere. Rain moved into southern counties on the 11th, but there were some breaks in the cloud further north to allow observations of the solar eclipse. Weak

(continued on page 4)



Right
Mr. John Joe 'Goggles'
Doyle (left) at a
presentation function to
mark his 56th continuous
year of rainfall
observations at Tulla, Co.
Clare, pictured with
Declan Murphy, Director
of Met Eireann.
(picture Shannon
Photographic Services)

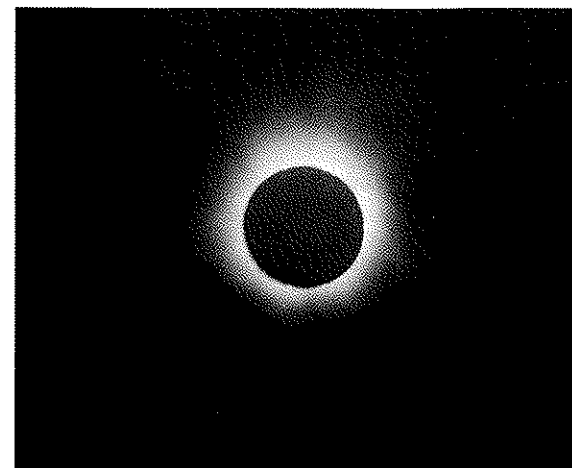
DROP IN TEMPERATURE MEASURED DURING ECLIPSE ON 11TH



Rain over the north and south of the country meant that conditions for viewing the partial solar eclipse during the morning of the 11th were far from ideal, but there were breaks in cloud over the midlands and east allowing the eclipse of over 95% of the sun's surface to be observed. In these areas there was a perceptible darkening during the morning, while temperatures fell at a time when they would normally be rising. At the climatological station of Blackrock, Co. Dublin, the observer Robert Weatherill measured a one degree drop in air temperature and a three degree drop in ground temperature between 0930 and 1030UTC, while weather conditions remained unchanged during the period. Similarly at Dublin Airport, the thermograph chart (above left) shows a drop of over a degree around the time of the eclipse.

Cloudy conditions prevailed over much of western Europe during the morning, but there were some breaks along the zone of totality allowing the full eclipse of approximately two minutes duration to be seen, such as at Amiens in northern France (left). As expected, the best conditions for eclipse viewing were under the mostly clear skies of southeastern Europe and the Middle East.

(eclipse photo courtesy Tony Coyne)





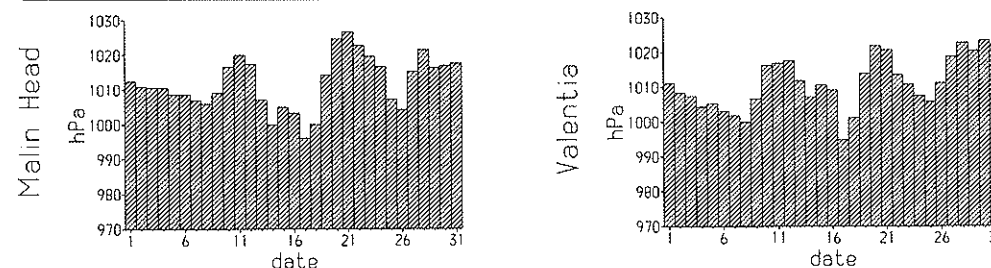
Right
Towering cumulonimbus clouds were a common sight on several days during the month, with some severe thunderstorms and reports of minor tornadoes in places.

frontal systems brought outbreaks of showery rain on the 12th and 13th.

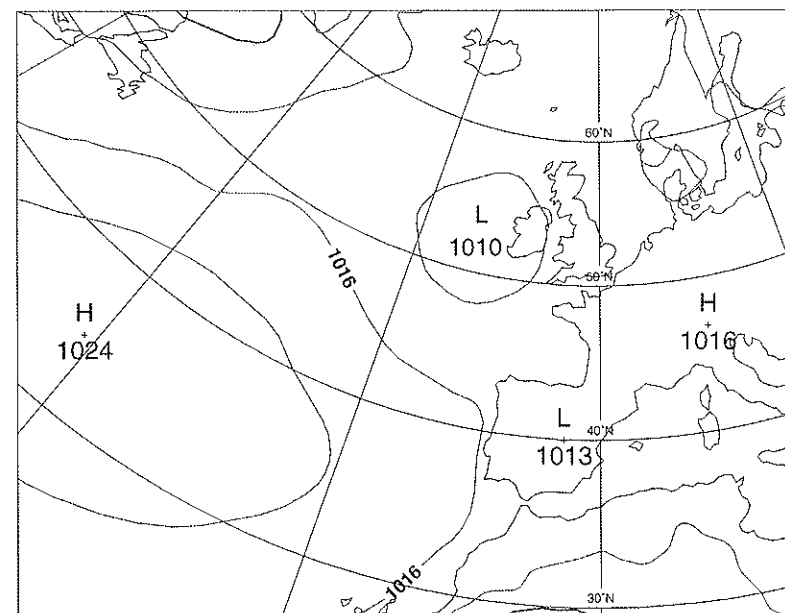
The weather around mid-month was very showery as a depression lay to the north of the country between the 14th and 16th; some of the showers were heavy and thundery in the fresh northwesterly airstream. Shower activity increased further as low pressure became centred over the country on the 17th and 18th; tornadoes were reported from Ballina and Portumna on the 17th, while severe thunderstorms over south County Wexford on the 18th produced golfball-sized hail and knocked out power supplies; Rosslare measured 27.5mm of rain in a 2-hour period during the early afternoon. High pressure to the northwest of the country brought a spell of quieter weather between the 19th and 21st, with long sunny periods; temperatures were near normal in the mainly northerly airstream. Another depression off the southwest coast on the 22nd brought a return to very unsettled weather in the south, however, where a band of heavy rain became almost stationary. Close to 100mm of rain fell in the Cork area

between the 22nd and 24th, while the north of the country was mainly dry during the same period. This heavy rain eventually reached northern areas on the 25th, before clearing to showers on the 26th as the depression moved away northwards. High pressure brought dry, warm weather on the 27th and 28th, but an active cold front gave a short spell of heavy rain as it moved eastwards on the 29th; as it passed, another tornado was observed at Balbriggan, Co. Dublin. The end of the month was mainly dry but cloudy as an anticyclone lay to the south of the country.

Mean windspeeds for the month were between 6 and 9 knots (7 and 10 m.p.h.) at inland stations, up to 15 knots (17 m.p.h.) at Malin Head, close to normal for August. Malin recorded the highest gust, 45 knots (52 m.p.h.), on the 25th. Thunder was recorded in the periods 5th to 6th, 14th to 18th and 24th to 26th; it was very widespread on the 18th, when it was accompanied by hail in places. Fog was fairly widespread during the first week and in the period 23rd to 27th.



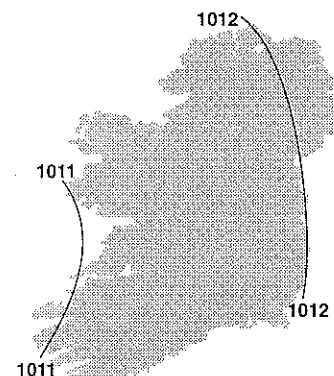
Mean daily M.S.L. pressure (hPa)



the above map is based on means of 1200 UTC values

MEAN ATMOSPHERIC PRESSURE

Mean sea level pressure for the month varied little over the country; values between 1011hPa and 1012hPa everywhere were below normal, especially in the south. As the Atlantic chart above indicates, depressions tended to be slow-moving at times near the west coast, particularly at the beginning of the month. The lowest pressure values were recorded on the 17th, however, as a depression crossed the north of the country; Connaught Airport measured the lowest value, 991.4h. The highest pressure of the month, 1026.5hPa, was recorded at Malin Head on the 21st.

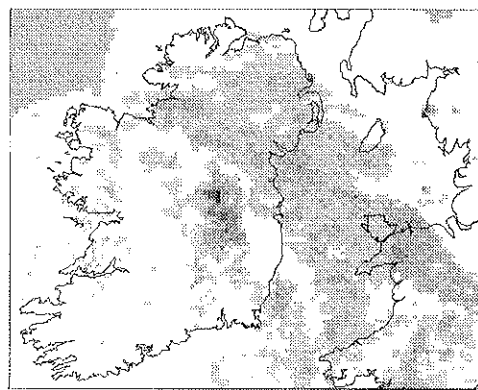


Totals very variable; heavy falls in places

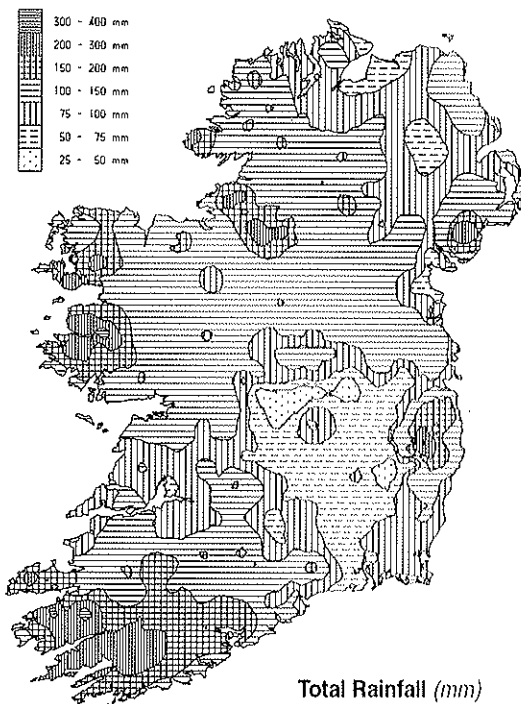
Most rainfall during August was localised or showery in nature, so while heavy rain fell on several days in some areas, other stations on the same days received little or none. As a result there was a wide variation in rainfall totals, from 42mm, or 56% of normal at Birr, to 200mm, or 222% at Cork Airport.

After a dry early summer in the south, very heavy rain was recorded here on the 4th and between the 22nd and 24th; although totals were over twice the normal for the month, however, it was not as wet as August 1997. In the east, rain was heaviest between the 4th and 6th and Dublin Airport's monthly total of 107mm was its highest since the exceptionally wet August of 1986.

Thundery showers also gave heavy downpours locally between the 14th and 18th. Despite this heavy rain, the number of wetdays during the month (days with 1.0mm or more of rainfall) was close to normal, ranging between 13 and 17 at most stations. Daily falls of over 50mm were recorded in the east of the country on the 4th/5th and in the south and west between the 22nd and 24th. Warrenstown (Co. Meath) measured 66.1mm on the 4th, just below its record daily fall of August 1986.

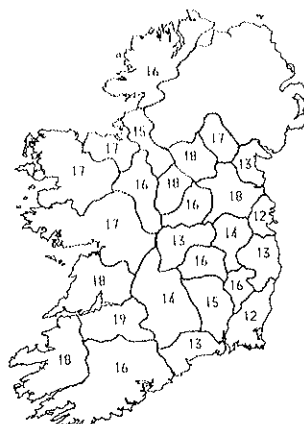


Left
With low pressure centred over the country on the 17th, there were outbreaks of rain or showers, with some severe thunderstorms in places.



Total Rainfall (mm)

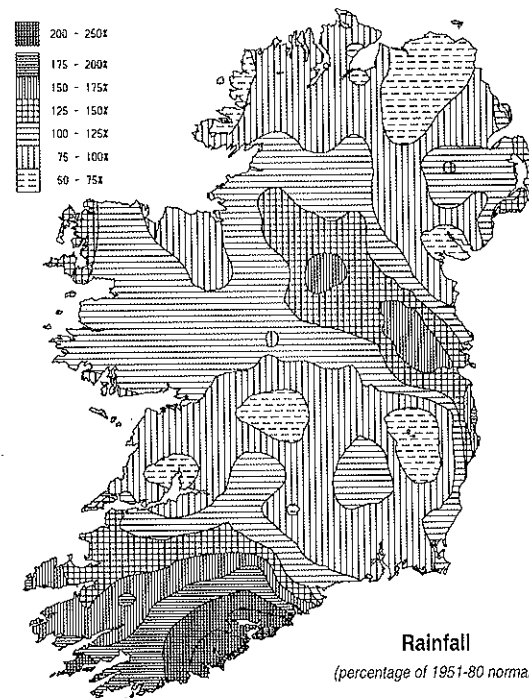
Below
The number of wetdays - days with 1mm or more rainfall - in each county



DAILY RAINFALL EXPRESSED AS % OF MONTHLY NORMAL

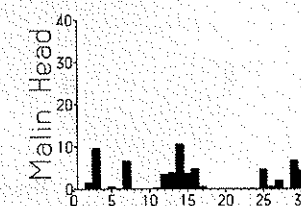
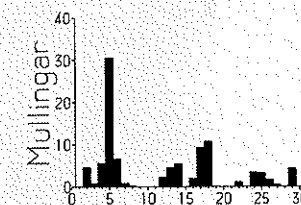
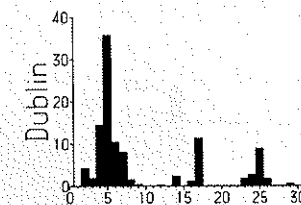
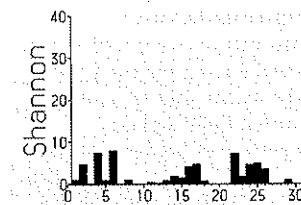
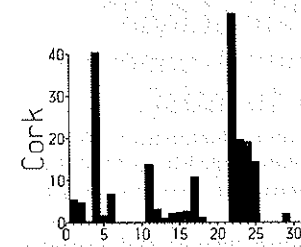
| | DAY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| COUNTY | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | TOTAL |
| Carlow | 2 | 16 | 1 | 9 | 4 | 2 | - | - | 1 | - | 2 | - | 6 | 4 | 4 | - | 2 | - | 1 | 3 | 2 | 15 | 5 | - | - | 1 | - | - | - | - | 74 | |
| Cavan | 3 | 14 | 2 | 13 | 12 | 10 | 1 | - | 1 | - | - | 6 | 13 | 5 | 1 | 3 | 5 | 2 | - | 1 | - | - | 6 | 22 | 7 | - | 2 | 2 | 1 | - | - | 132 |
| Clare | 5 | 2 | 3 | 5 | 3 | 7 | - | 1 | - | - | 2 | 3 | 3 | 11 | 2 | 1 | - | 1 | 7 | 5 | 10 | 8 | 3 | - | 1 | - | 1 | - | - | - | 86 | |
| Cork | 8 | 8 | 14 | 20 | 6 | 18 | - | - | 1 | 9 | 4 | 2 | 1 | 1 | 2 | 11 | 6 | 1 | 1 | 8 | 29 | 19 | 14 | 1 | - | 2 | - | - | - | - | - | 186 |
| Donegal | 1 | 6 | 3 | 3 | 4 | 9 | 2 | 1 | - | - | - | 6 | 8 | 5 | 6 | 1 | 1 | 8 | - | - | - | - | 9 | 19 | 1 | 1 | 3 | 4 | 1 | - | - | 104 |
| Dublin | 3 | 6 | - | 54 | 9 | 20 | 1 | - | - | - | - | 1 | 5 | - | 7 | 3 | 3 | - | - | 1 | 1 | 18 | - | 1 | - | 2 | - | - | - | - | - | 135 |
| Galway | 9 | 6 | 2 | 5 | 9 | 8 | 4 | - | - | - | - | 4 | 4 | 2 | 3 | 11 | 4 | 3 | - | - | 4 | 5 | 27 | 20 | 2 | 1 | 6 | - | - | - | - | 143 |
| Kerry | 6 | 1 | 12 | 6 | 22 | 2 | - | - | 7 | 4 | 3 | 2 | 2 | 4 | 15 | 16 | - | - | 1 | 1 | 12 | 6 | 3 | 4 | - | 5 | 1 | - | 1 | - | - | 136 |
| Kildare | 4 | 6 | 1 | 30 | 1 | 8 | - | - | - | - | 2 | 1 | 4 | 1 | 21 | 2 | 4 | - | - | 2 | 2 | 10 | - | 1 | - | - | 2 | 1 | - | - | - | 92 |
| Kilkenny | 2 | 9 | - | 15 | 5 | 5 | - | - | 1 | - | 3 | - | 1 | 4 | 8 | 2 | - | - | 1 | 3 | 2 | 13 | 5 | 1 | - | 2 | - | - | - | - | - | 82 |
| Laois | 2 | 1 | 1 | 1 | 11 | 8 | - | - | - | 7 | 1 | - | 1 | 7 | 6 | 1 | 1 | - | - | 4 | - | 14 | 7 | 1 | - | 2 | - | - | - | - | - | 78 |
| Leitrim | - | - | 3 | - | 28 | 6 | 11 | 1 | - | - | 1 | - | 4 | 6 | 3 | - | 10 | 8 | 3 | - | 1 | - | - | 34 | 14 | 1 | 1 | - | 3 | 3 | - | 141 |
| Limerick | 5 | 6 | 8 | 3 | 14 | 21 | 1 | - | - | - | 1 | 9 | 5 | 3 | 8 | 4 | 1 | - | - | 1 | 4 | 3 | 9 | 7 | - | 3 | - | - | - | - | - | 127 |
| Longford | 2 | 4 | 1 | 4 | 8 | 8 | 11 | - | - | - | 8 | 2 | 8 | 4 | 3 | 11 | 1 | - | - | 5 | 22 | 4 | 11 | - | 4 | 1 | 2 | - | - | - | - | 127 |
| Louth | 1 | 2 | - | 28 | 3 | 16 | 2 | - | - | 1 | - | 2 | 2 | - | - | 5 | 8 | 11 | - | - | - | - | 9 | 4 | - | - | 2 | - | - | - | - | 94 |
| Mayo | 8 | 1 | - | 4 | 15 | 19 | 1 | - | - | 1 | 2 | 8 | 2 | 2 | 6 | 5 | 7 | - | - | 3 | - | 12 | 23 | 2 | - | 9 | 1 | - | - | - | - | 134 |
| Meath | 1 | 9 | - | 72 | - | 18 | - | - | - | 3 | - | 2 | 1 | 7 | 1 | 8 | 3 | 13 | - | - | 1 | - | 9 | 2 | - | 3 | - | - | - | - | - | 155 |
| Monaghan | 2 | 14 | 3 | 20 | 13 | 9 | 1 | - | - | - | 6 | 13 | 1 | 2 | 1 | 6 | 7 | - | - | 1 | - | 6 | 23 | - | - | 5 | - | - | - | - | - | 136 |
| Offaly | 3 | 2 | - | 1 | 4 | 6 | - | - | - | 3 | - | 4 | 1 | 1 | - | 1 | 6 | - | - | 1 | 1 | 5 | - | 6 | 8 | - | 2 | - | - | - | - | 55 |
| Roscommon | 2 | 2 | 1 | 18 | 7 | 15 | 21 | - | 1 | - | - | 6 | 12 | 1 | 1 | 11 | 1 | - | - | 1 | - | 15 | 11 | 7 | 2 | 3 | 2 | - | - | - | - | 135 |
| Sligo | 1 | 11 | - | 12 | 2 | 12 | 16 | 1 | - | - | - | 3 | 14 | 2 | 13 | 2 | 5 | 3 | - | 2 | - | 1 | 2 | 15 | 4 | - | 7 | - | - | - | - | 128 |
| Tipperary | 8 | 2 | 1 | 26 | 1 | 11 | - | - | - | - | 2 | 1 | 4 | - | 11 | 1 | 8 | - | - | 1 | 3 | 2 | 12 | 3 | 2 | - | 1 | 1 | - | - | - | 101 |
| Waterford | 2 | 5 | 1 | 13 | - | 3 | - | - | - | 2 | - | 3 | 6 | 1 | 3 | 16 | 1 | 1 | - | 2 | 12 | 8 | 9 | 3 | 2 | - | - | - | - | - | - | 93 |
| Westmeath | 2 | 5 | 2 | 25 | 20 | 9 | - | - | - | - | 4 | 1 | 5 | 1 | 11 | 4 | 14 | - | - | 1 | - | 1 | - | 5 | 5 | 1 | - | 2 | 3 | - | 1 | 122 |
| Wexford | 2 | 9 | - | 20 | 3 | 4 | - | 1 | - | - | 8 | 1 | 1 | 1 | 20 | 1 | 5 | - | - | 5 | 6 | 14 | - | - | - | - | 1 | 1 | - | - | - | 103 |
| Wicklow | 2 | 8 | - | 25 | - | 17 | 5 | 25 | - | - | - | 3 | - | 4 | 5 | 5 | - | - | - | 1 | 44 | 6 | - | - | 1 | 2 | 1 | - | - | - | - | 164 |
| MEAN | 3 | 6 | 3 | 18 | 9 | 12 | 3 | 1 | - | 1 | 1 | 4 | 4 | 3 | 3 | 7 | 4 | 3 | - | - | 1 | 4 | 3 | 13 | 6 | 2 | - | 3 | 2 | 1 | - | 118 |

NOTE: In the above table, each value represents the percentage of the monthly normal that fell on each day. Stations within each county are averaged together. For example, 2% of the average monthly rainfall in Co. Carlow fell on the 1st.



Rainfall

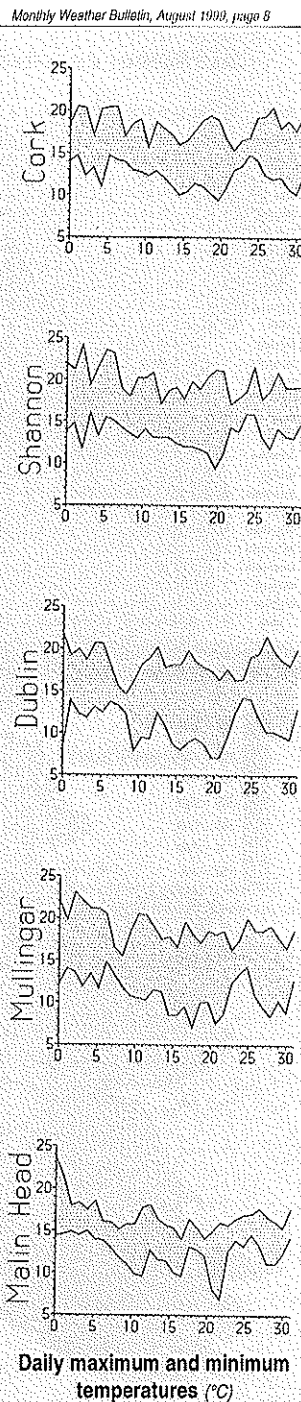
(percentage of 1951-80 normals)



Daily rainfall amounts (millimetres)

Warmer than
normal, especially
in the west

Daily maxima were only rarely above 20°C from the 8th onwards at most stations, but minima were above normal for most of the month, staying above 15°C at several stations as late as the 25th. At Valentia Observatory the temperature remained above 10°C all month. The lowest air temperature of the month, 3.0°C, was recorded at Letterkenny (Magherenan), Co. Donegal, on the 22nd, while Ardee (Boharnamoe), Co. Louth, measured the lowest grass minimum temperature, -1.0°C, on the same day. Clones recorded its lowest August grass minimum value since 1988 when it measured -1.0°C, also on the 22nd.



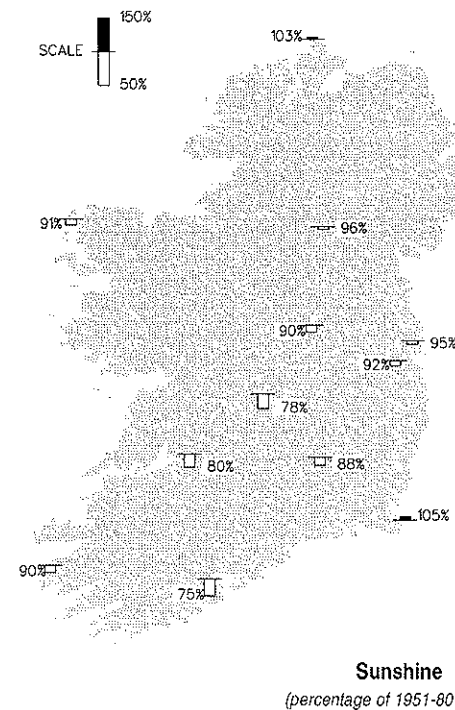
Monthly Weather Bulletin, August 1999, page 9

Mainly dull,
especially in
midlands and south

and the period 18th to 21st. The highest daily sunshine of the month, 13.5 hours, was measured at a number of stations on the 21st: Dublin Airport, Belmullet, Mullingar and Galway(Univ. Coll.). While most of the country enjoyed one of the sunniest days of summer on this day, fog and low cloud led to both Cork Airport and Valentia Observatory measuring less than one hour of sunshine.

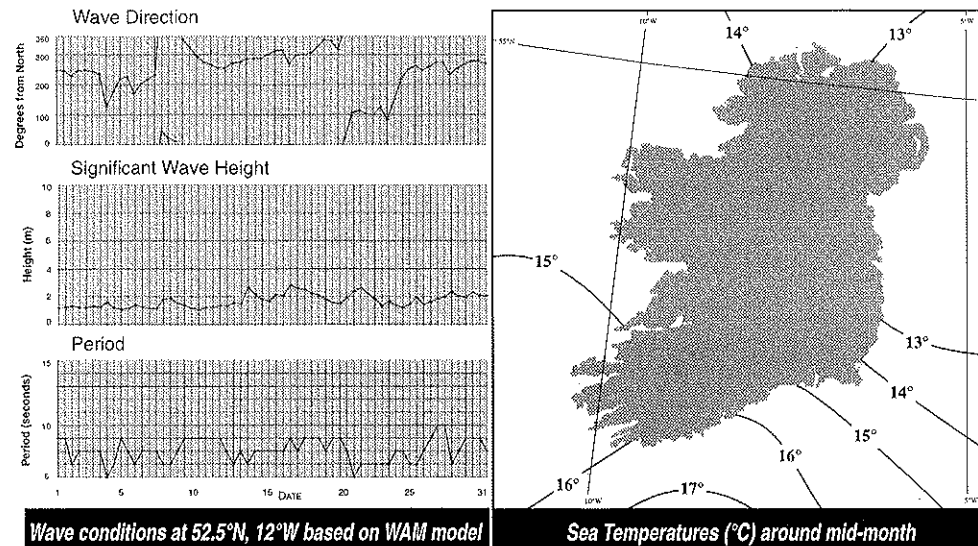
Figure 1 consists of five vertically stacked bar charts, each representing a different corpus: Cork, Shannon, Dublin, Mullingar, and Malin Head. Each chart plots the frequency of sentences with a specific number of words (x-axis, 0 to 30) against the count of such sentences (y-axis, 0 to 15). The distributions are generally unimodal and right-skewed, with most sentences containing between 10 and 25 words. The Mullingar corpus shows the highest frequency of 20-word sentences, while the Cork corpus has a notable frequency of 1-word sentences.

| Corpus | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | |
|------------|----|---|---|---|----|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|
| Cork | 1 | 5 | 0 | 8 | 8 | 5 | 0 | 4 | 4 | 4 | 0 | 1 | 0 | 10 | 7 | 12 | 9 | 0 | 11 | 0 | 0 | 0 | 2 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Shannon | 0 | 8 | 0 | 1 | 4 | 5 | 3 | 0 | 4 | 1 | 1 | 0 | 9 | 10 | 11 | 6 | 7 | 12 | 12 | 0 | 0 | 0 | 0 | 4 | 0 | 1 | 1 | 0 | 7 | 0 | 2 | |
| Dublin | 12 | 9 | 4 | 4 | 6 | 0 | 1 | 0 | 0 | 11 | 4 | 6 | 7 | 11 | 6 | 8 | 7 | 12 | 13 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 8 | 6 | 3 | 0 | 0 | |
| Mullingar | 2 | 4 | 5 | 0 | 5 | 0 | 5 | 2 | 0 | 0 | 10 | 5 | 7 | 6 | 12 | 9 | 7 | 6 | 14 | 8 | 0 | 0 | 4 | 0 | 1 | 0 | 2 | 2 | 0 | 4 | 0 | 0 |
| Malin Head | 1 | 1 | 5 | 0 | 12 | 0 | 7 | 7 | 0 | 2 | 0 | 1 | 0 | 8 | 2 | 5 | 7 | 11 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 6 | 0 | 0 | |

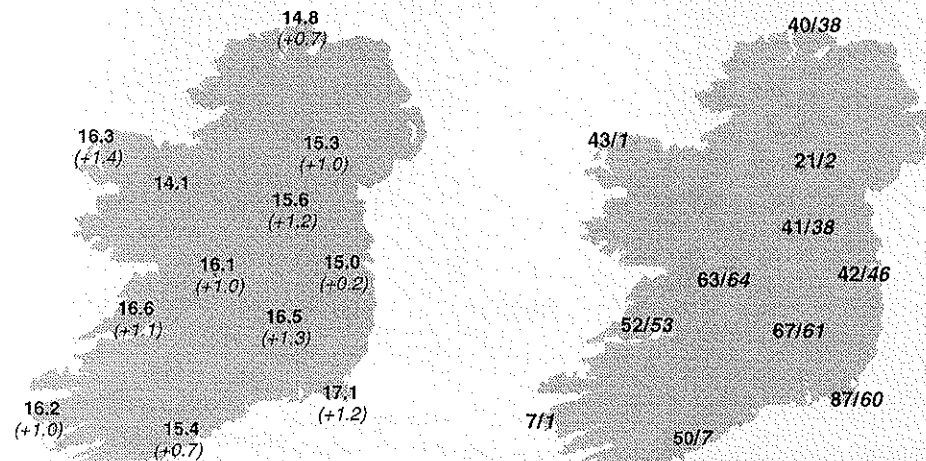


SEA TEMPERATURES

Sea temperatures rose by around a degree during the month off the south coast, but further north there was little change. They ranged from over 16°C near southern coasts to 13°C in the Irish Sea around mid-month. At Malin Head, the mean sea temperature was 14.7°C, almost the same as July and very close to normal.

Mean 10cm Soil Temperatures (°C)
at 0900Z

(difference from 1961-90 normals in brackets)

Soil Moisture Deficits (mm)
10th of month / End of month

| 10-DAY VALUES FOR SELECTED AGROMETEOROLOGICAL STATIONS | | | RAINFALL | | TEMPERATURE | | | | | | | | | | SUNSHINE | | mean wind speed (m/s) (knots) | | P.E. (Perman) (mm) | | | | | |
|--------------------------------------------------------------|--------|--------|--------------|-----------|-------------|-----------|-----------|------------|--------------------|-------------|------|---------------------|---------------------|----------------------|-------------------|------|-------------------------------|--------------------|--------------------|--------------------|--------------|-------------------------------|--------------------|---|
| Station | period | amount | % of average | rain days | wet days | mean max. | mean min. | mean daily | diff. from average | lowest min. | date | days with air frost | degree days > 4.4°C | degree days > 10.0°C | lowest grass-min. | date | days with ground frost | mean 10cm at 0900h | mean 30cm at 0900h | total no. of hours | % of average | mean wind speed (m/s) (knots) | P.E. (Perman) (mm) | |
| Co. Cork Fermoy | 1-10 | 89.2 | - | 6 | 6 | 20.1 | 13.7 | 16.9 | - | 11.4 | 5 | 0 | 125 | 69 | 7.8 | 1 | 0 | 18.0 | 17.6 | - | - | 2.3 | - | |
| | 11-20 | 9.1 | - | 5 | 3 | 18.8 | 10.3 | 14.6 | - | 6.9 | 20 | 0 | 102 | 47 | 2.7 | 20 | 0 | 16.0 | 16.7 | - | - | 2.4 | - | |
| | 21-end | 42.1 | - | 5 | 4 | 18.8 | 12.2 | 15.5 | - | 6.1 | 21 | 0 | 122 | 62 | 2.4 | 21 | 0 | 16.0 | 16.2 | - | - | 2.8 | - | |
| | month | 140.4 | 187 | 16 | 13 | 19.2 | 12.1 | 15.7 | 1.1 | 6.1 | 21 | 0 | 348 | 179 | 2.4 | 21 | 0 | 16.6 | 16.8 | - | - | 2.5 | - | |
| Co. Donegal Letterkenny | 1-10 | 28.0 | - | 5 | 5 | 20.2 | 13.6 | 16.9 | - | 10.3 | 10 | 0 | 125 | 69 | - | - | - | - | - | - | - | - | - | - |
| | 11-20 | 27.2 | - | 8 | 6 | 17.6 | 10.4 | 14.0 | - | 7.6 | 16 | 0 | 96 | 41 | - | - | - | - | - | - | - | - | - | - |
| | 21-end | 35.3 | - | 6 | 4 | 18.3 | 10.5 | 14.4 | - | 3.0 | 22 | 0 | 110 | 52 | - | - | - | - | - | - | - | - | - | - |
| | month | 90.5 | - | 19 | 15 | 18.7 | 11.4 | 15.1 | - | 3.0 | 22 | 0 | 331 | 162 | - | - | - | - | - | - | - | - | - | - |
| Co. Kerry Ardfert | 1-10 | 38.0 | - | 8 | 5 | 20.8 | 12.5 | 16.7 | - | 9.1 | 3 | 0 | 123 | 67 | 7.0 | 3 | 0 | - | - | 39.7 | - | - | - | - |
| | 11-20 | 38.4 | - | 7 | 7 | 19.5 | 11.1 | 15.3 | - | 6.5 | 20 | 0 | 109 | 54 | 4.8 | 20 | 0 | - | - | 68.0 | - | - | - | - |
| | 21-end | 25.5 | - | 8 | 6 | 19.4 | 13.0 | 16.2 | - | 8.1 | 21 | 0 | 130 | 68 | 5.7 | 21 | 0 | - | - | 33.3 | - | - | - | - |
| | month | 101.9 | - | 23 | 18 | 19.9 | 12.2 | 16.1 | - | 6.5 | 20 | 0 | 361 | 190 | 4.8 | 20 | 0 | - | - | 141.0 | - | - | - | - |
| Co. Leitrim Ballinamore | 1-10 | 49.5 | - | 6 | 4 | 20.0 | 12.5 | 16.3 | - | 6.6 | 10 | 0 | 119 | 63 | 1.0 | 10 | 0 | 16.5 | 16.6 | 32.8 | - | 1.7 | - | |
| | 11-20 | 33.9 | - | 7 | 6 | 17.8 | 10.4 | 14.1 | - | 8.0 | 15 | 0 | 97 | 42 | 3.5 | 16 | 0 | 15.1 | 15.7 | 41.6 | - | 1.9 | - | |
| | 21-end | 58.8 | - | 8 | 5 | 17.9 | 11.2 | 14.6 | - | 7.0 | 21 | 0 | 112 | 52 | 2.0 | 22 | 0 | 15.0 | 15.3 | 34.4 | - | 2.5 | - | |
| | month | 142.2 | 147 | 21 | 15 | 18.5 | 11.4 | 15.0 | 0.9 | 6.6 | 10 | 0 | 327 | 157 | 1.0 | 10 | 0 | 15.5 | 15.8 | 108.8 | 83 | 2.1 | 51 | |
| Co. Louth Ardee | 1-10 | 39.4 | - | 6 | 5 | 20.0 | 11.7 | 15.9 | - | 6.1 | 10 | 0 | 114 | 59 | -0.9 | 10 | 1 | 17.4 | 17.4 | - | - | - | - | - |
| | 11-20 | 24.1 | - | 7 | 5 | 19.6 | 9.2 | 14.4 | - | 6.6 | 19 | 0 | 100 | 48 | 0.2 | 19 | 0 | 16.1 | 16.3 | - | - | - | - | - |
| | 21-end | 9.9 | - | 5 | 3 | 19.4 | 10.0 | 14.7 | - | 3.9 | 22 | 0 | 114 | 56 | -1.7 | 22 | 2 | 15.1 | 15.9 | - | - | - | - | - |
| | month | 73.4 | 97 | 18 | 13 | 19.6 | 10.3 | 15.0 | - | 3.9 | 22 | 0 | 328 | 163 | -1.7 | 22 | 3 | 16.2 | 16.5 | - | - | - | - | - |
| Co. Waterford Dungarvan | 1-10 | 39.8 | - | 4 | 3 | 20.0 | 14.6 | 17.3 | - | 10.5 | 1 | 0 | 129 | 73 | 9.4 | 1 | 0 | - | 18.2 | 39.6 | - | 1.5 | - | |
| | 11-20 | 21.6 | - | 8 | 6 | 19.6 | 11.0 | 15.3 | - | 8.2 | 18 | 0 | 109 | 54 | 6.3 | 16 | 0 | - | 17.0 | 63.2 | - | 1.2 | - | |
| | 21-end | 56.7 | - | 6 | 4 | 19.6 | 12.9 | 16.3 | - | 8.1 | 27 | 0 | 130 | 69 | 6.1 | 27 | 0 | - | 16.9 | 29.8 | - | 1.6 | - | |
| | month | 118.1 | - | 18 | 13 | 19.7 | 12.8 | 16.3 | - | 8.1 | 27 | 0 | 368 | 196 | 6.1 | 27 | 0 | - | 17.4 | 132.6 | - | 1.4 | 55 | |
| Co. Wexford Johnstown Castle | 1-10 | 33.7 | - | 7 | 4 | 19.2 | 13.7 | 16.5 | - | 10.7 | 10 | 0 | 120 | 64 | 7.5 | 10 | 0 | 17.9 | 18.0 | 38.0 | - | 0.9 | - | |
| | 11-20 | 36.5 | - | 6 | 4 | 19.1 | 10.4 | 14.8 | - | 8.8 | 11 | 0 | 103 | 48 | 3.2 | 11 | 0 | 15.6 | 16.4 | 70.7 | - | 0.7 | - | |
| | 21-end | 17.1 | - | 6 | 3 | 18.6 | 12.4 | 15.5 | - | 9.2 | 27 | 0 | 122 | 60 | 4.0 | 27 | 0 | 15.7 | 16.2 | 39.9 | - | 1.0 | - | |
| | month | 87.3 | 102 | 19 | 11 | 18.9 | 12.2 | 15.6 | 0.9 | 8.8 | 11 | 0 | 345 | 173 | 3.2 | 11 | 0 | 16.4 | 16.8 | 148.6 | 87 | 0.9 | 72 | |

MEASURED POTENTIAL EVAPOTRANSPIRATION (P.E.)
AND SOIL MOISTURE

| County/ Station | Period | P.E. (mm) | | Soil Moisture (mm) | | |
|---------------------------------|--------|-----------|---------|--------------------|---------|---------|
| | | Amount | Deficit | Accumulated | Surplus | Deficit |
| Co. Dublin Kinsealy | 1-10 | 17.8e | - | 18 | 78 | - |
| | 11-20 | 35.9 | 17 | 35 | - | - |
| | 21-end | 19.5 | 4 | 39 | - | - |
| | month | 73.2e | - | - | - | - |
| Co. Kerry Valentia Obs. | 1-10 | 20.4 | - | 0 | 41 | - |
| | 11-20 | 22.4 | - | 0 | 38 | - |
| | 21-end | 25.7 | - | 0 | 16 | - |
| | month | 68.5 | - | - | - | - |
| Co. Leitrim Ballinamore | 1-10 | 32.1 | - | 0 | 37 | - |
| | 11-20 | 16.4 | - | 0 | 28 | - |
| | 21-end | 26.8 | - | 6 | 32 | - |
| | month | 55.3 | - | - | - | - |
| Co. Wexford Johnstown Castle | 1-10 | 31.2 | - | 63 | 21 | - |
| | 11-20 | 28.1 | - | 44 | 19 | - |
| | 21-end | 20.8 | 1 | 45 | - | - |
| | month | 80.1 | - | - | - | - |

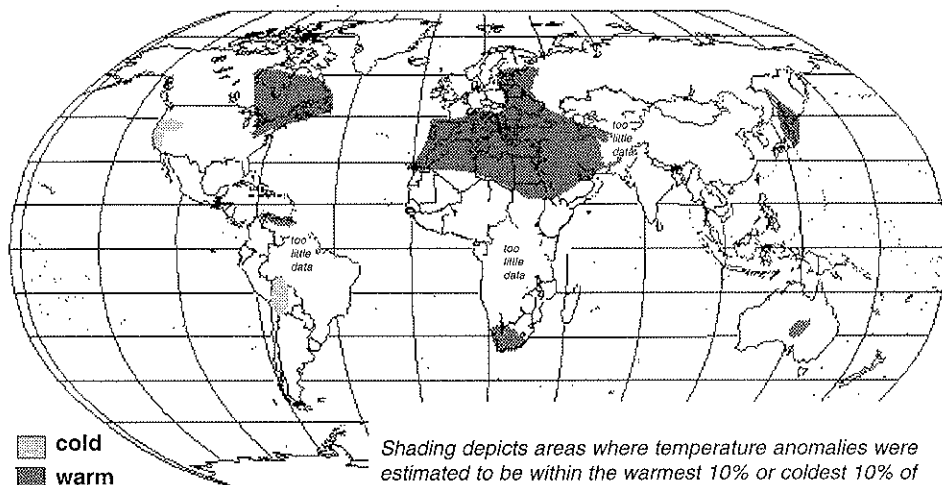
SEE BACK PAGE FOR NOTES ON THE DATA

| County/ Station | GLOBAL SOLAR RADIATION (MJ/sq. m.) | | | P.E. (Perman) (mm) | |
|------------------------------|---------------------------------------|-----------------|----------------------|--------------------------|-------|
| | 10-day totals | total for month | total for month (mm) | 1-10 | 11-20 |
| Co. Donegal Malin Head | 146.96 | 141.49 | 128.76 | 417.21 | 73 |
| | - | - | - | - | - |
| Co. Dublin Dublin Airport | 131.69 | 157.56 | 119.18 | 408.43 | 70 |
| | - | - | - | - | - |
| Co. Kerry Valentia Obs. | 137.46 | 157.99 | 113.81 | 409.26 | 66 |
| | - | - | - | - | - |
| Co. Kilkenny Rilkenny | 118.96 | 163.51 | 116.48 | 398.95 | 64 |
| | - | - | - | - | - |
| Co. Mayo Belmullet | 147.35 | 150.18 | 112.60 | 410.13 | 73 |
| | - | - | - | - | - |
| Co. Monaghan Clones | 126.73 | 130.00 | 111.82 | 368.55 | 60 |
| | - | - | - | - | - |
| Co. Offaly Birr | n/a | n/a | 121.76 | n/a | 60 |
| | - | - | - | - | - |

GLOBAL TEMPERATURE ANOMALIES

SUMMER 1999

(June, July, August)



Above- Summer was among the warmest 10% on record over many parts of eastern and southern Europe, north Africa and northeastern America. Only small areas of western U.S.A. and the central Andes were exceptionally cool during the same period.

(source: Climate Prediction Centre, NOAA)

SUMMARY OF SIGNIFICANT WEATHER WORLDWIDE DURING AUGUST



Another warm summer; rainfall and sunshine near normal

Summer was warmer than normal for the fifth successive year, with mean air temperatures up to a degree above normal for the season. Mean air temperatures for the season varied between 13.4°C at Connaught Airport and 16.0°C at Shannon Airport, between half a degree and a degree above normal. June was relatively cool but August and particularly July were warmer than normal. Temperatures rose above 20°C very rarely during June, but this value was exceeded on most days during July and the first week of August. The warmest weather of the season was in late July, when Kilkenny measured the highest temperature, 27.4°C on July 31st. The lowest air temperature, 2.4°C, was recorded at Dublin Airport on June 8th, while Clones measured the lowest grass minimum temperature, -5.5°C, on the same day, the lowest summer temperatures at these stations for 24 and 37 years respectively.

Rainfall totals for the season were between 129mm, or 71% of normal, at Rosslare and 303mm, 117% of normal, at Valentia Observatory. June and July were dry in the south and southeast but August more than compensated in the south; almost 80% of Cork Airport's summer total of 256mm fell in August. The number of raindays (days with 0.2mm or more rainfall) recorded during the season was close to normal everywhere; there were between 40 and 50 raindays in the east and south, but up to 60 such days in the west and southwest. Cork Airport's daily fall of 49.6mm on August 22nd was its highest summer fall since August 1986. Sunshine totals for the season were close to normal at most stations; they ranged from 371 hours at Birr to 617 hours at Rosslare, with percentage of normal values between 83% of normal at Shannon Airport and 105% at Rosslare. July was the sunniest month of summer everywhere, while the highest daily sunshine, 15.3 hours, was recorded at Malin Head on July 26th. Mean windspeeds for the season of between 6 and 14 knots were above normal generally. Malin Head recorded the highest gust, 48 knots (55 m.p.h.) on June 19th.

Note : This summary is based on midnight to midnight readings from the synoptic stations operated by Met Éireann.

| County/ Station | RAINFALL (mm) | | | TEMPERATURE (°C) | | | | SUNSHINE (hours) | | | NO. OF DAYS WITH: | | | | | |
|----------------------|---------------|--------------|------------------------------|------------------|--------------------|------------------|-----------------|------------------|--------------|------------------------------|-------------------|------|-----------|------|---------|------------|
| | Total | % of average | most in a day amount date(s) | Mean | diff. from average | Extremes Highest | Extremes Lowest | Daily mean | % of average | most in a day amount date(s) | Rain | Snow | Air frost | Hail | Thunder | Gale gusts |
| | | | | | | | | | | | | | | | | |
| CO. CLARE | | | | | | | | | | | | | | | | |
| SHANNON AIRPORT | 166.6 | 80 | 16.2 18 Jul | 16.0 | +1.0 | 26.0 | 6.3 | 4.12 | 83 | 14.4 27 Jul | 51 | 0 | 0 | 0 | 2 | 4 |
| CO. CORK | | | | | | | | | | | | | | | | |
| CORK AIRPORT | 256.3 | 113 | 49.6 22 Aug | 14.9 | +0.7 | 24.7 | 5.2 | 4.85 | 86 | 14.6 27 Jul | 43 | 0 | 0 | 0 | 2 | 31 |
| CO. DONEGAL | | | | | | | | | | | | | | | | |
| MALIN HEAD | 235.9 | 99 | 20.4 19 Jun | 14.0 | +0.5 | 23.6 | 4.4 | 5.23 | 104 | 15.3 26 Jul | 55 | 0 | 0 | 0 | 1 | 2 |
| CO. DUBLIN | | | | | | | | | | | | | | | | |
| DUBLIN AIRPORT | 198.4 | | 35.7 5 Aug | 14.5 | | 25.6 | 2.4 | 5.48 | 97 | 15.1 25 Jun | 48 | 0 | 0 | 0 | 2 | 15 |
| CASEMENT AERODROME | 181.1 | 105 | 21.9 5 Aug | 14.7 | +0.4 | 26.7 | 2.8 | 5.28 | 98 | 14.4 25 Jun | 42 | 0 | 0 | 1 | 5 | 4 |
| CO. KERRY | | | | | | | | | | | | | | | | |
| VALENTIA OBSERVATORY | 303.3 | 117 | 26.2 18 Jul | 15.0 | +0.5 | 23.6 | 6.3 | 4.56 | 92 | 14.1 25 Jun | 60 | 0 | 0 | 0 | 0 | 6 |
| CO. KILKENNY | | | | | | | | | | | | | | | | |
| KILKENNY | 140.0 | 81 | 14.5 2 Jun | 15.1 | +0.6 | 27.4 | 2.6 | 5.26 | 104 | 14.9 27 Jul | 50 | n/a | 0 | --- | n/a | --- |
| CO. MAYO | | | | | | | | | | | | | | | | |
| BELMULLET | 262.1 | 114 | 23.8 25 Aug | 14.8 | +0.9 | 24.4 | 4.9 | 4.71 | 91 | 14.8 26 Jul | 57 | 0 | 0 | 1 | 2 | 2 |
| CONNAUGHT AIRPORT | 298.3 | | 24.5 6 Aug | 13.4 | | 25.3 | 4.2 | 4.44 | | 14.8 25 Jul | 60 | 0 | 0 | 0 | 2 | 39 |
| CO. MONAGHAN | | | | | | | | | | | | | | | | |
| CLONES | 227.9 | 100 | 25.5 5 Aug | 14.5 | +0.8 | 27.0 | 2.6 | 4.61 | 104 | 14.7 26 Jul | 53 | n/a | 0 | --- | n/a | --- |
| CO. OFFALY | | | | | | | | | | | | | | | | |
| BIRR | 147.4 | 75 | 15.4 30 Jun | 14.8 | +0.5 | 26.7 | 4.0 | 4.03 | 84 | 14.4 28 Jul | 47 | n/a | 0 | --- | n/a | --- |
| CO. WESTMEATH | | | | | | | | | | | | | | | | |
| MULLINGAR II | 206.1 | 96 | 30.6 5 Aug | 14.6 | +0.8 | 26.9 | 3.2 | 5.02 | 103 | 14.7 28 Jul | 58 | n/a | 0 | --- | n/a | --- |
| CO. WEXFORD | | | | | | | | | | | | | | | | |
| ROSSLARE | 128.5 | 71 | 32.0 18 Aug | 15.3 | +0.7 | 22.2 | 6.6 | 6.71 | 105 | 15.1 25 Jun | 40 | 0 | 0 | 1 | 2 | 14 |

Sunday 1st: Fog in places cleared this morning. Only the east and northeast had good sunny spells today and there were scattered showers. Light southerly winds. Warm inland this afternoon.

Rainfall: nil to 1mm generally, 3mm to 5mm in the extreme south
Temperature: max. 18°C to 24°C, min. 8°C 14°C inland, up to 16°C coastal

Sunshine: trace to 5 hours generally, 8 to 13 hours in the northwest, east and southeast

Monday 2nd: Cloudy with occasional rain and light southeasterly winds. Brightening in the southwest during the afternoon and evening. Close with temperatures normal or a bit above.

Rainfall: 1mm in Rosslare, 2mm to 3mm in the northwest, 4mm to 9mm generally

Temperature: max. 18°C to 22°C, min. 11°C to 15°C

Sunshine: nil to 2 hours generally, 7 hours in Valentia

Tuesday 3rd: Misty overnight with fog in places which cleared during the morning. A front moving slowly northwards over Ulster gave some heavy rain, mainly in the northeast. Otherwise there were good dry spells and a few showers but there was rain in the extreme southwest later. Warm inland this afternoon.
Rainfall: nil to 3mm generally, 6mm in Valentia, 9mm in the northwest
Temperature: max. 18°C to 24°C, min. 12°C to 15°C
Sunshine: nil in Malin Head, 3 to 9 hours otherwise

Wednesday 4th: Fog patches in the north cleared and most areas got off to a dry start. However, the rain in the southwest spread slowly northwards to affect all but parts of Ulster. Rain turned heavy in places this evening while in the southwest there was a clearance. Light occasionally moderate southeasterly or easterly winds. Afternoon temperatures a bit above normal.

Rainfall: nil to 3mm in the northwest, 6mm to 8mm in the west, 9mm to 14mm in the east and southeast, 23mm in Valentia & 40mm at Cork Airport

Temperature: max. 17°C to 22°C, min. 12°C to 16°C

Sunshine: nil to 1 hour in the far south, 2 to 6 hours generally

Thursday 5th: Spells of rain, some thundery, overnight and at first today in Leinster, Ulster and much of Connaught with mist and fog in Munster. Brighter conditions spread gradually from the south during the afternoon and early evening but thundery showers also developed. Light variable winds becoming southerly or southeasterly. Close with temperatures about or above normal.

Rainfall: 1mm to 4mm in the southwest, 7mm to 10mm in the southeast, 22mm to 31mm elsewhere, up to 36mm at Dublin Airport

Temperature: max. 18°C to 22°C, min. 11°C to 16°C

Sunshine: trace to 4 hours generally, 8 to 11 hours in the south and southeast

Friday 6th: Early fog here and there cleared but showers developed, some prolonged and thundery. The best of the sunshine was in the north. Light southeasterly winds. Close and fairly warm.

Rainfall: nil or trace in the northwest, 5mm to 11mm generally, 20mm to 25mm in the extreme west

Temperature: max. 19°C to 24°C, min. 12°C to 16°C

Sunshine: 2 to 7 hours generally, 13 hours in Malin Head

Saturday 7th: There were showers today, some lengthy in the north and east with the south having the best of the sunshine. Light southeasterly winds becoming light to moderate easterly. Temperatures fell but it was still fairly warm in the south and southeast.

Rainfall: nil to 4mm generally, 7mm to 10mm in the northwest and east
Temperature: max. 16°C to 23°C, min. 12°C to 16°C

Sunshine: trace to 3 hours in the northwest and east, 3 to 8 hours elsewhere

Sunday 8th: Spells of rain in the east and south but only a few showers here and there in the west and north. Little or no sun except in the northwest. Temperature fall continuing as winds turned easterly to northeasterly.

Rainfall: nil to 4mm

Temperature: max. 16°C to 19°C, min. 13°C to 15°C

Sunshine: nil to 3 hours generally, 7 to 8 hours in the northwest

Monday 9th: Some light rain in parts of the east at first but many areas essentially dry today. The best of the sunshine was in the north, the west and near the south coast. Light or moderate northeasterly winds gave a fairly cool day.
Rainfall: nil or trace

Temperature: max. 14°C to 19°C, min. 8°C to 15°C

Sunshine: nil to 1 hour generally, 4 to 5 hours in the southeast, 7 to 13 hours in the northwest

Tuesday 10th: While a few parts of the west and south had isolated showers, it was mostly a dry day with variable amounts of sun. Light variable winds becoming southerly late in the day. Normal temperatures this afternoon.

Rainfall: nil or trace

Temperature: max. 16°C to 21°C, min. 7°C to 13°C; ground temperatures down to -1°C in Clones

Sunshine: 2 to 4 hours in the west, 7 to 12 hours elsewhere

Wednesday 11th: Dry overnight. Some outbreaks of rain today, mostly during the morning: in south Munster some were heavy but elsewhere they were scattered and lighter with quite a few places escaping entirely. Light southeasterly winds. Normal temperatures.

Rainfall: nil to 2mm generally, 10mm to 14mm in the southwest

Temperature: max. 16°C to 21°C, min. 9°C to 14°C

Sunshine: trace to 2 hours generally, 3 to 7 hours in the east and southeast

Thursday 12th: A dry start but some showers near parts of the south coast this afternoon became widespread in the evening. However, amounts of rain were mostly small. Light southeasterly winds becoming southerly. Temperatures normal or a little above. Highly variable amounts of sunshine.

Rainfall: nil to 4mm

Temperature: max. 18°C to 21°C, min. 6°C to 14°C

Sunshine: nil to 3 hours in the west, 6 to 9 hours elsewhere

Friday 13th: Mostly cloudy with occasional rain overnight and this morning. Brightening a little in the afternoon with well-scattered showers. Amounts of rain small except in parts of the northeast. Light occasionally moderate southwesterly winds turning west to northwest. Normal temperatures.

Rainfall: nil to 5mm

Temperature: max. 16°C to 20°C, min. 11°C to 14°C

Sunshine: nil to 4 hours

Saturday 14th: Showers today, thundery in places and also sunny spells. Light or moderate westerly winds. Temperatures below or about normal.

Rainfall: 1mm to 6mm generally, 10mm to 12mm in the northwest

Temperature: max. 16°C to 20°C, min. 10°C to 13°C

Sunshine: 6 to 10 hours

Sunday 15th: Showers were more scattered and except in counties near the south and north coasts activity was low. Many areas had good sunny spells. Light or moderate westerly winds. Temperatures below or about normal.

Rainfall: nil to 4mm

Temperature: max. 16°C to 19°C, min. 8°C to 12°C

Sunshine: 2 hours in Malin, 5 to 6 hours in the south, 8 to 12 hours elsewhere

Monday 16th: Sunny spells and well-scattered showers. Light occasionally moderate westerly winds backing southwesterly or southerly late this evening as rain spread into west Munster. Temperatures a little below normal.

Rainfall: nil to 5mm generally, 12mm in Valentia

Temperature: max. 15°C to 19°C, min. 6°C to 12°C

Sunshine: 5 to 10 hours

Tuesday 17th: A dull start with outbreaks of rain but brightening up except in parts of Ulster. However, showers developed and were thundery in quite a number of places especially in the evening. Light to moderate southerly winds becoming light variable generally but easterly near the north coast. Afternoon temperatures normal or above in the south but below normal in the far north.

Rainfall: 1mm to 7mm generally, 9mm to 15mm in the south and east

Temperature: max. 14°C to 20°C, min. 9°C to 12°C

Sunshine: trace to 2 hours in the northwest, 3 to 7 hours generally, 9 to 11 hours in the extreme southeast

Wednesday 18th: Some mist or fog overnight and isolated but thundery showers. Thundery activity became more widespread today especially in the midlands, east and southeast. The best of the sunshine was in the west and northwest. Winds were between northwest and northeast and mostly light. Afternoon temperatures normal or a little below.

Rainfall: nil to 4mm generally, 10mm to 14mm in the west & southwest, 32mm in Rosslare

Temperature: max. 16°C to 19°C, min. 7°C to 13°C

Sunshine: 2 to 4 hours in the east, 6 to 11 hours generally

Thursday 19th: Very little shower activity today and good sunny spells in many areas. Northerly winds were light mostly but moderate near northern and northwestern coasts. Normal temperatures this afternoon but cool in some coastal districts.

Rainfall: nil or trace

Temperature: max. 15°C to 20°C, min. 8°C to 11°C inland, up to 13°C coastal

Sunshine: 4 to 5 hours in Belmullet and Clones, 12 hours in Malin Head, 7 to 13 hours elsewhere

Friday 20th: Winds turned northeasterly or easterly today and apart from a few showers here and there, it was dry with good sunny spells in many places.

Rainfall: nil or trace

Temperature: max. 14°C to 21°C, min. 7°C to 12°C

Sunshine: 3 or 4 hours in the west, 7 to 13 hours generally

Saturday 21st: Dry as easterly winds increased to moderate generally and fresh near the south coast where conditions were cloudy; elsewhere there were good sunny spells. Cool near coasts with onshore winds but temperatures normal or a little above elsewhere.

Rainfall: nil

Temperature: max. 15°C to 21°C, min. 5°C to 11°C inland, up to 14°C coastal

Sunshine: trace to 1 hours in the extreme south, 10 to 14 hours otherwise

Sunday 22nd: Outbreaks of rain near the south coast early spread very slowly northwards into Munster, south Connaught and parts of Leinster today. Elsewhere it remained dry. In south Munster there were some bursts of very heavy rain this evening. Moderate easterly winds but fresh near the south coast. Temperatures mostly below normal.

Rainfall: nil to 4mm generally, 7mm to 11mm in the southwest, 50mm at Cork Airport

Temperature: max. 15°C to 20°C, min. 6°C to 15°C

Sunshine: nil to 4 hours generally, 6 hours in Clones, 13 hours in Malin Head

Monday 23rd: A moderate easterly wind gave slightly cool and cloudy conditions today. There were outbreaks of rain some heavy or thundery near the south coast but light and well-scattered in most places. Northern areas were dry and had the best of the sunshine.

Rainfall: nil to 2mm generally, 9mm in Valentia, 20mm at Cork Airport

Temperature: max. 16°C to 20°C, min. 10°C to 15°C

Sunshine: nil to 4 hours generally, 6 hours in Valentia and 10 hours in Malin Head

Tuesday 24th: A moderate easterly windflow gave cloudy conditions with spells of rain in many areas, locally heavy or thundery. Rain was most persistent in Munster but most areas had good dry spells and parts of Ulster had another dry

day. Temperatures below normal.

Rainfall: nil to 5mm generally, 7mm to 9mm in the southeast, 18mm at Casement Aerodrome, 19mm at Cork Airport and 21mm in Belmullet
Temperature: max. 16°C to 20°C, min. 12°C to 16°C
Sunshine: nil or trace

Wednesday 25th: Misty start with rain at times in many areas. During the afternoon and evening outbreaks were thundery in places, particularly in the midlands, west and northwest. Generally cloudy but a few sunny intervals: mainly in Munster. Light variable winds becoming southerly or southwesterly. Close with temperatures above or about normal.

Rainfall: 1mm to 9mm generally, 14mm at Cork Airport, 21mm to 24mm in the west and northwest

Temperature: max. 17°C to 22°C, min. 13°C to 16°C

Sunshine: nil to 4 hours

Thursday 26th: Cloudy start with rain at times, locally heavy or thundery in parts of Ulster. Brightening in the afternoon with scattered showers and moderate to fresh and blustery southwesterly winds which decreased this evening as shower activity died down. Afternoon temperatures about normal.

Rainfall: nil to 6mm

Temperature: max. 17°C to 20°C, min. 10°C to 13°C inland, up to 15°C coastal

Sunshine: trace to 5 hours generally, 7 to 8 hours in the extreme southeast

Friday 27th: A few spots of rain overnight and this morning but mostly dry with highly variable amounts of sun. Light southwesterly winds. Temperatures normal or above.

Rainfall: nil to 2mm

Temperature: max. 16°C to 22°C, min. 8°C to 13°C

Sunshine: 1 to 4 hours in the west, 5 to 8 hours elsewhere, 12 hours in Rosslare

Saturday 28th: Most areas were dry but there were a few spots of drizzle in some hill and coastal districts. Light southwesterly or southerly winds gave normal or above normal temperatures.

Rainfall: nil or trace

Temperature: max. 17°C to 22°C, min. 8°C to 14°C

Sunshine: 1 to 3 hours generally, 5 hours in Valentia, 5 to 9 hours in the east and southeast

Sunday 29th: An active rainbelt affected western coastal areas early in the morning but activity became 'spotty' as it moved across the country to clear the southeast about mid-afternoon. Behind it conditions were much brighter with just a few showers. Southwesterly winds were moderate occasionally fresh and blustery at first but veering westerly and decreased with the clearance. Temperatures normal or a little below.

Rainfall: nil to 4mm generally, 7mm to 11mm in the northwest and in Valentia

Temperature: max. 16°C to 20°C, min. 9°C to 13°C

Sunshine: 3 to 7 hours

Monday 30th: Mainly cloudy but dry today although there was a little rain at times, mainly near northern and northwestern coasts. Moderate southwesterly or westerly winds. Temperatures normal or a little below.

Rainfall: nil or trace generally, 4mm in Malin Head

Temperature: max. 15°C to 20°C, min. 8°C to 14°C

Sunshine: nil to 5 hours

Tuesday 31st: A light to moderate southwesterly windflow gave cloudy conditions overnight and this morning with a little drizzle in places. Dry in the afternoon and evening but drizzle near west-facing coasts at times. Close with temperatures normal or a little above.

Rainfall: nil to 1mm

Temperature: max. 16°C to 21°C, min. 12°C to 15°C

Sunshine: nil to 4 hours

TABLES

Monthly Weather Bulletin, August 1999, page 16

| County / Station | TEMPERATURE (°C) | | | | | | |
|--------------------------------|------------------|--------------|---------------------------------|----------------------|---------------------|---------------------------|-----------|
| | Mean max. | Mean min. | Mean/ deviation from average | Highest max./date | Lowest min./date | Lowest grass min./date | |
| CO. CLARE | | | | | | | |
| SHANNON AIRPORT | 19.9 | 13.7 | 16.8 | 1.5 | 24.1 3 | 9.4 20 | 5.3 21 |
| CARRON | 18.2 | 11.7 | 15.0 | | 21.8 3 7 | 8.5 21 | 5.5 21 |
| CO. CORK | | | | | | | |
| FERMOY (MOORE PARK) | 19.2 | 12.1 | 15.7 | 1.1 | 22.3 2 | 6.1 21 | 2.4 21 |
| CORK AIRPORT | 18.4 | 12.7 | 15.6 | 1.0 | 20.5 2 7 | 9.4 20 | 6.5 28 30 |
| SHERKIN ISLAND | 19.2 | 14.3 | 16.8 | 1.9 | 21.0 3 5 | 10.6 19 | 9.2 19 |
| BALLINCURRIG (PEAFIELD) | 18.3 | 11.6 | 15.0 | | 20.9 27 | 7.6 30 | 5.4 30 |
| CO. DONEGAL | | | | | | | |
| MALIN HEAD | 16.8 | 12.5 | 14.7 | 0.6 | 23.6 1 | 6.9 22 | 4.7 22 |
| BALLYSHANNON (CATHLEEN'S FALL) | 18.4 | 12.2 | 15.3 | 0.8 | 23.3 3 | 7.7 10 | |
| LETTERKENNY (MAGHERENAN) | 18.7 | 11.4 | 15.1 | | 23.4 1 | 3.0 22 | |
| CO. DUBLIN | | | | | | | |
| DUBLIN (PHOENIX PARK) | 19.6 | 11.2 | 15.4 | 0.6 | 24.3 1 | 6.5 21 | 0.0 21 |
| DUBLIN AIRPORT | 18.5 | 11.2 | 14.9 | | 21.7 1 | 7.1 20 21 | 5.1 21 |
| CASEMENT AERODROME | 18.8 | 11.4 | 15.1 | 0.5 | 24.0 1 | 7.0 20 | 0.3 18 |
| DUBLIN (MERRION SQUARE) | 18.7 | 13.5 | 16.1 | 0.2 | 23.1 1 | 10.8 21 | |
| CO. GALWAY | | | | | | | |
| GALWAY (UNIV. COLL.) | 19.6 | 12.8 | 16.2 | 1.2 | 23.0 4 7 | 6.9 30 | 2.6 21 |
| MAAM VALLEY | 18.7 | 12.7 | 15.7 | | 22.4 4 | 9.7 16 | 7.1 10 |
| CONNEMARA NATIONAL PARK | 18.8 | 12.6 | 15.7 | | 22.9 7 | 9.4 3 16 | |
| BALLYGAR | 19.9 | 11.7 | 15.8 | | 23.5 1 | 7.7 10 | 4.8 10 |
| CO. KERRY | | | | | | | |
| VALENTIA OBSERVATORY | 18.7 | 13.1 | 15.9 | 0.9 | 21.3 3 | 10.3 19 | 6.5 19 |
| ARDFERT (LISCAHANE) | 19.9 | 12.2 | 16.1 | | 24.6 7 | 6.5 20 | 4.8 20 |
| CO. KILKENNY | | | | | | | |
| KILKENNY | 19.9 | 11.8 | 15.9 | 1.0 | 23.4 1 | 6.2 16 | 0.4 16 |
| CO. LEITRIM | | | | | | | |
| BALLINAMORE | 18.5 | 11.4 | 15.0 | 0.9 | 23.2 3 | 6.6 10 | 1.0 10 |
| CO. LIMERICK | | | | | | | |
| MOUNT RUSSELL | 18.3 | 12.2 | 15.3 | | 21.7 7 | 8.0 20 | 3.9 20 |
| CO. LOUTH | | | | | | | |
| ARDEE (BOHARNAMOE) | 19.6 | 10.3 | 15.0 | | 24.4 1 | 3.9 22 | -1.7 22 |
| CO. MAYO | | | | | | | |
| BELMULLET | 18.8 | 12.9 | 15.9 | 1.5 | 22.5 7 | 7.9 10 | 5.0 10 |
| STRAIDE | 19.2 | 11.9 | 15.6 | | 23.0 4 | 7.4 10 | 2.5 10 |
| CONNAUGHT AIRPORT | 17.6 | 11.2 | 14.4 | | 22.0 4 | 8.0 15 | 5.9 15 |
| CO. MEATH | | | | | | | |
| WARRENSTOWN | 19.1 | 12.0 | 15.6 | 1.1 | 24.5 1 | 7.6 21 | 1.0 21 |
| CO. MONAGHAN | | | | | | | |
| CLONES | 18.4 | 11.6 | 15.0 | 0.8 | 24.1 1 | 6.0 22 | -1.0 10 |
| CO. OFFALY | | | | | | | |
| BIRR | 19.3 | 11.8 | 15.6 | 0.9 | 23.3 7 | 5.3 21 | 1.6 21 |
| DERRYGREENAGH | 19.3 | 11.0 | 15.2 | 1.0 | 23.2 3 | 6.4 21 | -0.4 21 |
| CO. SLIGO | | | | | | | |
| ARDTARMON | 19.6 | 12.0 | 15.8 | | 25.0 1 3 | 7.2 21 | 1.5 21 |
| CO. TIPPERARY | | | | | | | |
| FETHARD (PARSONSHILL) | 19.0 | 11.3 | 15.2 | | 23.0 7 | 8.1 16 | 2.2 16 |
| CO. WATERFORD | | | | | | | |
| WATERFORD (TYCOR) | 20.1 | 12.6 | 16.4 | 1.0 | 22.2 3 | 9.0 18 | |
| DUNGARVAN (CARRIGLEA) | 19.7 | 12.8 | 16.3 | | 22.3 6 | 8.1 27 | 6.1 27 |
| CO. WESTMEATH | | | | | | | |
| MULLINGAR II | 18.9 | 11.5 | 15.2 | 1.2 | 23.1 3 | 7.1 18 | 2.3 16 |
| CO. WEXFORD | | | | | | | |
| JOHNSTOWN CASTLE | 18.9 | 12.2 | 15.6 | 0.9 | 21.1 1 | 8.8 11 | 3.2 11 |
| ROSSLARE | 18.8 | 13.5 | 16.2 | 1.0 | 20.7 3 7 | 9.4 16 | 5.0 11 |
| CLONROCHE | 19.1 | 11.7 | 15.4 | 0.6 | 22.0 1 | 6.7 16 | 2.1 16 27 |
| JOHN F. KENNEDY PARK | 19.2 | 12.1 | 15.7 | 0.7 | 21.3 31 | 7.8 16 | |

Monthly Weather Bulletin, August 1999, page 17

TABLES

| County / Station | RAINFALL (mm) | | | | SUNSHINE (HOURS) | | | |
|--------------------------------|-----------------|-----------------|-----------------------|--|-------------------------|-----------------|------------------|-----------------------|
| | Total amount | % of average | Most in a day/date | | Daily mean (hrs/day) | % of average | % of possible | Most in a day/date |
| CO. CLARE | | | | | | | | |
| SHANNON AIRPORT | 60.6 | 73 | 6.8 22 | | 3.74 | 80 | 25 | 12.2 20 |
| CARRON | 106.5 | 81 | 13.8 24 | | | | | |
| CO. CORK | | | | | | | | |
| FERMOY (MOORE PARK) | 140.4 | 187 | 46.8 6 | | | | | |
| CORK AIRPORT | 199.8 | 222 | 53.7 22 | | 3.93 | 75 | 27 | 11.1 17 |
| SHERKIN ISLAND | 153.5 | 183 | 28.6 22 | | 4.90 | 93 | 34 | 12.3 20 |
| BALLINCURRIG (PEAFIELD) | 189.5 | | 40.1 23 | | 3.96 | | 26 | 10.2 17 |
| CO. DONEGAL | | | | | | | | |
| MALIN HEAD | 63.4 | 72 | 11.3 13 | | 4.82 | 103 | 32 | 13.4 21 |
| BALLYSHANNON (CATHLEEN'S FALL) | 116.1 | 121 | 30.3 25 | | 3.82 | 87 | 26 | 10.3 21 |
| LETTERKENNY (MAGHERENAN) | 90.5 | | 20.3 25 | | | | | |
| CO. DUBLIN | | | | | | | | |
| DUBLIN (PHOENIX PARK) | 120.6 | 157 | 43.3 4 | | 4.44 | 94 | 30 | 12.1 21 |
| DUBLIN AIRPORT | 106.6 | | 48.4 4 | | 4.98 | 95 | 34 | 13.5 21 |
| CASEMENT AERODROME | 91.4 | 131 | 30.3 4 | | 4.57 | 92 | 31 | 13.4 21 |
| DUBLIN (MERRION SQUARE) | 96.2 | 141 | 43.6 4 | | | | | |
| CO. GALWAY | | | | | | | | |
| GALWAY (UNIV. COLL.) | 110.3 | 114 | 16.4 25 | | 3.98 | 84 | 27 | 13.5 21 |
| MAAM VALLEY | 179.4 | | 63.4 24 | | | | | |
| CONNEMARA NATIONAL PARK | 129.0 | | 20.9 25 | | | | | |
| BALLYGAR | 101.0 | 119 | 32.8 6 | | | | | |
| CO. KERRY | | | | | | | | |
| VALENTIA OBSERVATORY | 168.5 | 172 | 23.5 5 | | 4.28 | 90 | 29 | 10.5 19 |
| ARDFERT (LISCAHANE) | 101.9 | | 20.7 5 | | 4.55 | | 31 | 12.5 19 |
| CO. KILKENNY | | | | | | | | |
| KILKENNY | 66.9 | 101 | 13.2 4 | | 4.22 | 88 | 29 | 13.1 21 |
| CO. LEITRIM | | | | | | | | |
| BALLINAMORE | 142.2 | 147 | 34.5 25 | | 3.51 | 83 | 24 | 12.2 21 |
| CO. LIMERICK | | | | | | | | |
| MOUNT RUSSELL | 155.4 | | 20.1 22 | | | | | |
| CO. LOUTH | | | | | | | | |
| ARDEE (BOHARNAMOE) | 73.4 | 97 | 20.0 4 | | | | | |
| CO. MAYO | | | | | | | | |
| BELMULLET | 126.4 | 144 | 26.5 25 | | 4.57 | 91 | 31 | 13.5 21 |
| STRAIDE | 109.1 | | 39.7 6 | | 4.15 | | | 13.1 21 |
| CONNAUGHT AIRPORT | 132.4 | | 27.3 6 | | 3.83 | | 26 | 13.2 21 |
| CO. MEATH | | | | | | | | |
| WARRENSTOWN | 127.2 | 159 | 66.1 4 | | | | | |
| CO. MONAGHAN | | | | | | | | |
| CLONES | 116.7 | 136 | 20.7 25 | | 3.91 | 96 | 26 | 10.3 15 |
| CO. OFFALY | | | | | | | | |
| BIRR | 42.3 | 56 | 6.5 25 | | 3.59 | 78 | 24 | 11.8 21 |
| DERRYGREENAGH | 77.2 | 103 | 13.2 6 | | | | | |
| CO. SLIGO | | | | | | | | |
| ARDTARMON | 101.7 | | 13.1 7 | | | | | |
| CO. TIPPERARY | | | | | | | | |
| FETHARD (PARSONSHILL) | 72.7 | | 22.4 4 | | | | | |
| CO. WATERFORD | | | | | | | | |
| WATERFORD (TYCOR) | 68.8 | 85 | 14.2 16 | | | | | |
| DUNGARVAN (CARRIGLEA) | 118.1 | | 26.2 6 | | 4.28 | | 31 | 11.3 14 20 |
| CO. WESTMEATH | | | | | | | | |
| MULLINGAR II | 97.7 | 124 | 21.1 4 | | 4.11 | 90 | 28 | 13.5 21 |
| CO. WEXFORD | | | | | | | | |
| JOHNSTOWN CASTLE | 87.3 | 102 | 23.8 4 | | 4.79 | 87 | 33 | 11.5 20 |
| ROSSLARE | 87.3 | 120 | 32.0 18 | | 6.21 | 105 | 42 | 13.2 20 |
| CLONROCHE | 92.0 | 95 | 16.5 16 | | 4.62 | 90 | 31 | 12.4 21 |
| JOHN F. KENNEDY PARK | 69.0 | 82 | 14.5 16 | | 4.91 | 99 | 33 | 11.8 21 |

TABLES

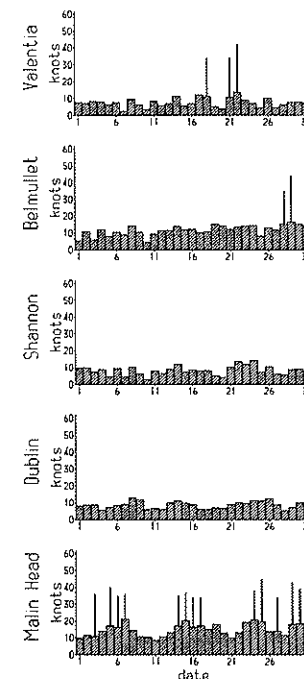
Monthly Weather Bulletin, August 1999, page 18

| County / Station | WEATHER — No. OF DAYS WITH | | | | | | | | | MEAN 0900 SOIL TEMPERATURES (°C) | | |
|--------------------------------|----------------------------|-------------|--------------|-----------------|------|---------------|------|---------|-----|-------------------------------------|------|------|
| | Rain days | Wet days | Air frost | Ground frost | Snow | Snow lying | Hail | Thunder | Fog | 10cm | 20cm | 30cm |
| CO. CLARE | | | | | | | | | | | | |
| SHANNON AIRPORT | 23 | 17 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 16.6 | 17.1 | 17.7 |
| CARRON | 25 | 20 | 0 | 0 | | | | | | 16.1 | | 16.6 |
| CO. CORK | | | | | | | | | | | | |
| FERMOY (MOORE PARK) | 16 | 13 | 0 | 0 | | | | | | 16.6 | 16.4 | 16.8 |
| CORK AIRPORT | 20 | 18 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 15.4 | 15.7 | 17.0 |
| SHERKIN ISLAND | 21 | 15 | 0 | 0 | | | | | | 17.4 | | 18.1 |
| BALLINCURRIG (PEAFIELD) | 20 | 19 | 0 | 0 | | | | | | 15.3 | 15.4 | 15.8 |
| CO. DONEGAL | | | | | | | | | | | | |
| MALIN HEAD | 19 | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 14.8 | 15.2 | 15.8 |
| BALLYSHANNON (CATHLEEN'S FALL) | 22 | 18 | 0 | | | | | | | | | |
| LETTERKENNY (MAGHERENAN) | 19 | 15 | 0 | | | | | | | | | |
| CO. DUBLIN | | | | | | | | | | | | |
| DUBLIN (PHOENIX PARK) | 19 | 13 | 0 | 0 | | | | | | | | |
| DUBLIN AIRPORT | 15 | 13 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 15.5 | 16.3 | 16.2 |
| CASEMENT AERODROME | 15 | 13 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 15.0 | 15.7 | 16.4 |
| DUBLIN (MERRION SQUARE) | 14 | 7 | 0 | | | | | | | | | |
| CO. GALWAY | | | | | | | | | | | | |
| GALWAY (UNIV. COLL.) | 21 | 15 | 0 | 0 | | | | | | | | |
| MAAM VALLEY | 25 | 20 | 0 | 0 | | | | | | | | |
| CONNEMARA NATIONAL PARK | 23 | 19 | 0 | | | | | | | | | |
| BALLYGAR | 20 | 13 | 0 | 0 | | | | | | | | |
| CO. KERRY | | | | | | | | | | | | |
| VALENTIA OBSERVATORY | 22 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16.2 | 16.6 | 17.3 |
| ARDFERT (LISCAHANE) | 23 | 18 | 0 | 0 | | | | | | | | |
| CO. KILKENNY | | | | | | | | | | | | |
| KILKENNY | 19 | 15 | 0 | 0 | | 0 | | | | 16.5 | 16.9 | 17.3 |
| CO. LEITRIM | | | | | | | | | | | | |
| BALLINAMORE | 21 | 15 | 0 | 0 | | | | | | 15.5 | 15.7 | 15.8 |
| CO. LIMERICK | | | | | | | | | | | | |
| MOUNT RUSSELL | 23 | 21 | 0 | 0 | | | | | | 14.6 | 15.3 | |
| CO. LOUTH | | | | | | | | | | | | |
| ARDEE (BOHARNAMOE) | 18 | 13 | 0 | 3 | | | | | | 16.2 | 16.5 | 16.5 |
| CO. MAYO | | | | | | | | | | | | |
| BELMULLET | 21 | 17 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 16.3 | 17.3 | 18.3 |
| STRAIDE | 17 | 17 | 0 | 0 | | | | | | 16.2 | | |
| CONNAUGHT AIRPORT | 20 | 17 | 0 | 0 | 0 | 0 | 0 | 2 | 14 | 14.1 | 14.7 | 15.5 |
| CO. MEATH | | | | | | | | | | | | |
| WARRENTOWN | 18 | 11 | 0 | 0 | | | | | | 15.6 | 16.0 | 17.5 |
| CO. MONAGHAN | | | | | | | | | | | | |
| CLONES | 17 | 17 | 0 | 1 | | 0 | | | | 15.3 | 15.7 | 16.3 |
| CO. OFFALY | | | | | | | | | | | | |
| BIRR | 15 | 11 | 0 | 0 | | 0 | | | | 16.1 | 16.7 | 17.0 |
| DERRYGREENAGH | 17 | 13 | 0 | 2 | | | | | | | | |
| CO. SLIGO | | | | | | | | | | | | |
| ARDTARMON | 19 | 17 | 0 | 0 | | | | | | | | |
| CO. TIPPERARY | | | | | | | | | | | | |
| FETHARD (PARSONSHILL) | 20 | 14 | 0 | 0 | | | | | | 15.1 | 15.9 | |
| CO. WATERFORD | | | | | | | | | | | | |
| WATERFORD (TYCOR) | 18 | 13 | 0 | | | | | | | | | |
| DUNGARVAN (CARRIGLEA) | 18 | 13 | 0 | 0 | | | | | | | 17.2 | 17.4 |
| CO. WESTMEATH | | | | | | | | | | | | |
| MULLINGAR II | 19 | 16 | 0 | 0 | | 0 | | | | 15.6 | 16.0 | 17.3 |
| CO. WEXFORD | | | | | | | | | | | | |
| JOHNSTOWN CASTLE | 19 | 11 | 0 | 0 | | | | | | 16.4 | 16.2 | 16.8 |
| ROSSLARE | 14 | 11 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 17.1 | 17.4 | 17.8 |
| CLONROCHE | 16 | 14 | 0 | 0 | | | | | | 15.7 | 16.5 | 16.8 |
| JOHN F. KENNEDY PARK | 15 | 12 | 0 | | | | | | | 16.3 | 16.5 | 17.2 |

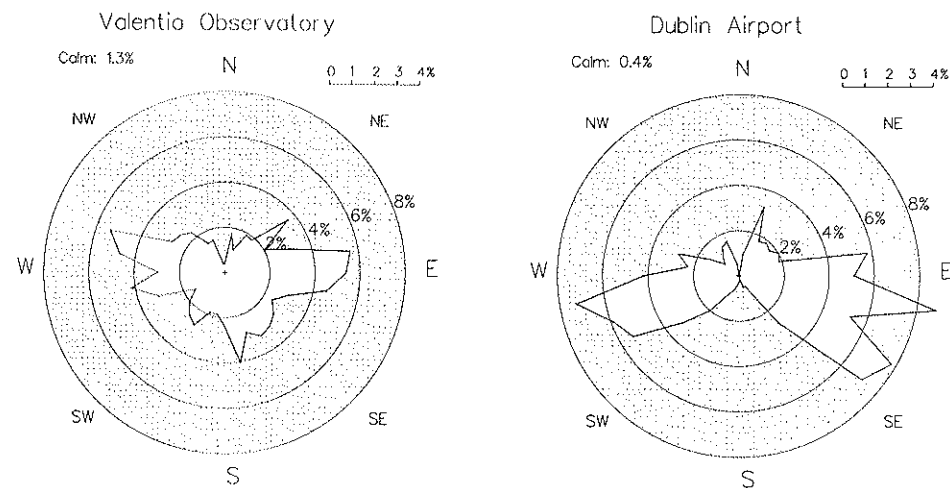
Monthly Weather Bulletin, August 1999, page 19

TABLES

| County / Station | WIND (KNOTS) | | | | | | | | | | Days with gales | Hours with gale gusts |
|----------------------|---------------|----------------------------|-------------------|-------------------------|------------|---|----|----|--|--|--------------------|--------------------------|
| | Mean speed | Max. 10-min. dir. speed | mean date/hour | Max. Gust dir. speed | date/time | | | | | | | |
| CO. CLARE | | | | | | | | | | | | |
| SHANNON AIRPORT | 8.1 | 110° | 21 24/11 | 280° | 32 14/1305 | 0 | 0 | 0 | | | | |
| CO. CORK | | | | | | | | | | | | |
| CORK AIRPORT | 8.8 | 270° | 22 14/13 | 090° | 34 22/1433 | 0 | 1 | 1 | | | | |
| | | 090° | 22 22/15 | | | | | | | | | |
| CO. DONEGAL | | | | | | | | | | | | |
| MALIN HEAD | 14.7 | 110° | 33 25/01 | 110° | 45 25/0056 | 0 | 13 | 41 | | | | |
| CO. DUBLIN | | | | | | | | | | | | |
| CASEMENT AERODROME | 7.6 | 250° | 22 26/14 | 100° | 30 24/1944 | 0 | 0 | 0 | | | | |
| DUBLIN AIRPORT | 8.5 | 130° | 19 1/14 | 260° | 28 26/1744 | 0 | 0 | 0 | | | | |
| | | 260° | 19 13/17 | | | | | | | | | |
| CO. KERRY | | | | | | | | | | | | |
| VALENTIA OBSERVATORY | 7.4 | 110° | 23 22/08 | 100° | 42 22/1348 | 0 | 3 | 8 | | | | |
| CO. KILKENNY | | | | | | | | | | | | |
| KILKENNY | 6.1 | 290° | 17 14/14 | 290° | 29 14/1300 | 0 | 0 | 0 | | | | |
| | | 260° | 17 16/14 | | | | | | | | | |
| CO. MAYO | | | | | | | | | | | | |
| BELMULLET | 11.5 | 180° | 28 29/05 | 180° | 44 29/0455 | 0 | 2 | 7 | | | | |
| CONNAUGHT AIRPORT | 8.3 | 270° | 21 26/16 | 110° | 31 24/1050 | 0 | 0 | 0 | | | | |
| CO. MONAGHAN | | | | | | | | | | | | |
| CLONES | 6.9 | 300° | 19 14/18 | 290° | 31 14/1528 | 0 | 0 | 0 | | | | |
| CO. OFFALY | | | | | | | | | | | | |
| BIRR | 6.4 | 130° | 17 6/15 | 270° | 30 29/0959 | 0 | 0 | 0 | | | | |
| | | 110° | 17 24/08 | | | | | | | | | |
| CO. WESTMEATH | | | | | | | | | | | | |
| MULLINGAR II | 6.0 | 160° | 15 5/18 | 050° | 26 8/1240 | 0 | 0 | 0 | | | | |
| | | 050° | 15 8/10 | 090° | 26 24/1418 | | | | | | | |
| CO. WEXFORD | | | | | | | | | | | | |
| ROSSLARE | 7.4 | 050° | 29 8/10 | 050° | 38 8/0923 | 0 | 2 | 15 | | | | |

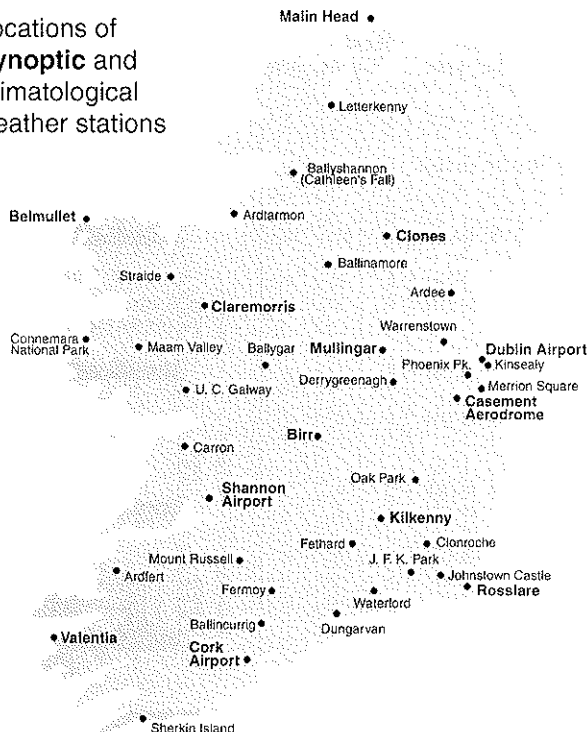


Daily mean wind speeds and maximum significant gusts (34 knots or more)



FREQUENCY OF WIND DIRECTION

Locations of Synoptic and Climatological weather stations



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NOTES ON THE TABLES

A. General

- Rainfall amounts are given in millimetres, temperature in degrees Celsius, sunshine duration in hours and wind speed in knots. (1 knot=1.15 m.p.h.)
- At all stations daily rainfall totals refer to the 24-hour period ending at 0900UTC the following day. The term rainfall includes all forms of precipitation, such as snow and hail, and deposition from dew or frost, measured as equivalent rain.
- 'Raindays' and 'wetdays' are days during which the total rainfall is not less than 0.2mm and 1.0mm respectively.
- A 'day' for the purposes of this publication refers to the period from 0900UTC on a particular day to 0900UTC on the following day. (This is because climatological stations make their daily observations at 0900UTC.)
- The mean daily air temperature over a period is taken as the mean of the daily maxima and daily minima (averaged separately over the period).
- Days with air frost are those during which the minimum air temperature was below 0°C. Similarly days with ground frost indicate days when the grass minimum temperature was below 0°C. (Grass minimum temperatures are measured by a thermometer placed horizontally on pegs just above the tips of short grass.)
- Mean soil and earth temperatures are based on readings taken at 0900UTC.
- A gale is a mean wind over a 10 minute period of 34 knots or more. A gale gust is a gust of 34 knots or more. All wind speeds refer to the wind at an effective height of 10 metres above the ground.
- 'e' denotes that the value is calculated using one or more estimated readings.
- Data from Northern Ireland is kindly provided by the Belfast Weather Centre.

B. Agmet

- Calculated Potential Evapotranspiration (P.E.) values are based on values of temperature, sunshine, wind speed and vapour pressure using the Penman formula. Because of formula limitations, negative values can occur in winter; these are replaced in the table by zero. Measured P.E. values are those measured by means of soil-filled tanks sunk into the ground with their upper grass-covered ends at surface level.
- Soil moisture deficits and surpluses are computed from the differences between rainfall and actual evapotranspiration (A.E.). Estimates of A.E. are derived from measured values of P.E. (See Agmet Memo No. 1, 1966). Soil moisture surpluses are assumed to be removed by drainage and surface run-off and are not therefore carried forward from one period to the next. Soil moisture deficits are regarded as being cumulative. Where heavy rain occurs near the end of the fixed period, the date of cut-off may be adjusted to avoid error due to insufficient run-off time.
- Degree day totals are calculated using the method set out by McVicker in the Journal of the Institution of Heating and Ventilating Engineers (Vol. 14 No. 38, Nov-Dec 1946).
- Global solar radiation values are given in MJ/sq.m. correct to two decimal places (3.6MJ=1kWh).

C. Laboratory

- Daily samples of air and precipitation are taken at Valentia Observatory at 1000UTC each day. Monthly precipitation samples at other stations are taken at 1200UTC on the 1st of each month.
- Air sample data are given in microgrammes per cubic metre, electrical conductivity in micro-Siemens per centimetre and pH in pH units.