Cloudy easterlies predominate

May began with an unsettled spell that lasted until about the 10th and was characterised by frequent frontal troughs bringing rain that was heavy at times and winds that blew from between south and west, with occasional gale gusts. After the 10th, however, the weather settled into the predominant pattern of the month, with easterly winds that were generally light to moderate in strength, little or no rain and, at least until the final few days, a good deal of cloud. It was warm in the west, however, particularly later in the period, but quite cool at times in the east, although the sunshine that brightened up the end of the month also gave a lift to the temperatures of those last few days.

The wind gusts to gale force or stronger on between 1 and 8 days generally but Murlough Head as usual was cut out on its own in this respect with a total of 16 days with gale gusts. Indeed Murlough was the only station to report gale gusts after the 17th. Nonetheless it was Bimlutch that recorded the month's strongest gust of 49 knots on the 4th. There were no reports of thunder, lightning or snow during the month, and only a few showers of hail on the 6th and 7th. Fog was infrequent except at Cork Airport.

The month began with an anticyclone over the UK and a large and complex area of low pressure west of Ireland. The anticyclone slowly strengthened but drifted eastwards over the North Sea, allowing the area of low pressure to drift in over the country. Rainbelts from depressions as far away as Greenland moved eastwards across Ireland on the 1st and 2nd, although most of the rain fell in the west and north. On the 3rd a depression moved slowly northwards just off the west coast, again pushing rainbelts northeastwards across the country, resulting in some heavy falls of rain that day, in some cases the heaviest of the month. The depression then drifted eastwards just off the north coast on the 4th and the winds became strong and gusty westerly.

From the 5th to the 7th the North Atlantic was divided into a low pressure area in the north with a depression centred east of Greenland and south of Iceland, and to the south the Azores anticyclone extended a ridge of high pressure eastwards over Northern Spain. Ireland lay between these two systems. Rainbelts associated with the depression moved eastwards across the country on the 8th in a mild humid southwesterly airflow; a cooler fresher flow followed in their wake with occasional showers and some sunshine. During the 7th a small depression ran eastwards along the 50°N latitude line but came to a halt south of Ireland causing the winds to slacken over the country on the 8th. It slowly filled on the 9th as the high pressure from the Azores built up and extended northwards over Ireland and the UK.

However this anticyclone also moved eastwards towards the North Sea and then northwards over Scandinavia as another depression approached the west coast on the 10th, pushing frontal troughs eastwards across the country with again some heavy falls of rain. The high pressure over Scandinavia joined the anticyclone over Greenland and pushed the depression west of Ireland...
The normal mean pressure map for the month of May shows low pressure to the north of Ireland, so that the most notable feature of the map above is the area of low mean pressure extending out from the Bay of Biscay to the south and southwest of the country. Although the actual mean pressure values recorded were within a couple of hectopascals of the normal values, the resultant southeast-to-northwest orientation of the isobars is very different from the normal southwest-to-northeast pattern. The month’s highest and lowest pressure values were both recorded at Belmullet.

A depression off the west coast brought pressure at the station down to 990.7hPa on the 3rd, while an anticyclone in the same area on the 29th caused the barometer to rise to 1029.6hPa.

The slow, steady warming of the sea continued during May. Coastal waters in the north Irish Sea warmed from 8°C to 9.5°C, while the temperature of the waters to the southwest rose from 10.3°C to 11.5°C. These values are quite close to the normal values for the month of May. Moin Head reported a mean sea surface temperature of 9.8°C for the month, also very close to the May normal.
Dry in the north

Rainfall varied quite a bit across the country, from a grand total for the month of just 19mm at Malin Head (which exceeds the record set during the very dry May of 1991 by less than 1mm), to 173mm at Maam Valley in Connemara. Overall the month was wetter than normal to the southwest of a line running roughly from Mayo to Wicklow, the total at Sherkin Island in West Cork coming to 155% of normal. Northeast of that line there was less rain.

Above: These radar images show the rainfall that gave some heavy falls on the 2nd and 3rd clearing away northeastwards on the morning of the 2nd.

Above: The number of wet days - days with 1mm or more of rain - in each county during May 1994.

Daily rainfall amounts (in mm)
Below normal in the east

The run of easterlies from mid-month onwards kept temperatures in the east well below normal for a considerable period. The result is that whereas the mean monthly air temperature of 11.7°C at Valentia Observatory in Co. Kerry is half a degree above normal, mean values in the Dublin area are around a degree below. In fact it has been the coldest May for 15 years at Dublin Airport and the coldest for between 7 and 10 years elsewhere.

And if you look just at daytime maximum temperatures the picture is even worse; mean maximum values in the Dublin area are the lowest for the month of May since 1967. The temperature never reached 15°C at most northern and eastern stations throughout the period from the 16th to the 29th, and only barely exceeded 20°C on a couple of occasions at northern and western stations between the 12th and the 14th. Luttrellstown’s 21.2°C on both the 12th and 13th being the highest air temperature recorded during the month. The night of the 8th/9th was the coldest of the month in most places. The air temperature at Markree Castle in Sligo fell to -1.5°C and the ground temperature at Derrygognaugh in Co. Offaly got down to -9°C. A few coastal stations escaped without any frost, but there were up to 15 nights with frost inland.

Best of the sunshine in the extreme north

Malin Head was definitely the place to be during May. It was the only station to receive the normal amount of sunshine, with a daily average of 6.4 hours. The daily means elsewhere range from just 2.3 hours at Claremorris to 5.7 hours at Belmullet, Valentia and Rossnowlagh, which works out at between 65% and 91% of normal. It was the dullest May since 1973 at Cork Airport and the dullest for between 8 and 33 years at most other stations.

The best couple of days provided the best of the sunshine, although it was very dull in the extreme north and northwest on the 31st. The sun shone for a full fifteen hours at Malin on Sunday the 29th, the sunniest day of the month. Otherwise there was a fair amount of sunshine between the 7th and the 9th, on the 13th and 16th, and from the 27th till the end of the month. There were only four dull days at Malin Head - a dull day is a day with half an hour or less of sunshine - but up to 9 such days elsewhere, the dullest days included the 2nd, 10th, 15th and 16th, and the period from the 20th to the 25th in Dublin and the north midlands. The sun shone at Malin Head for 39% of the available hours of daylight, but only 23% of the daytime was sunny at Claremorris.
Large north-south contrast in rainfall due to influence of high pressure to north, low pressure to south

1st-15th: Initially changeable conditions (with rain on the 8th and 9th) but after the 9th, low pressure to the south of Ireland caused more rain to fall in southern areas. A more general improvement occurred with rising pressure from the northeast after the 16th. Rainfall for the period varied from over 200% in the south to less than 50% in the north. The period was rather cloudy with near normal temperatures. After an initial wetting during the first eleven or twelve days, soil moisture deficits developed in all areas.

16th-25th: High pressure centred between Scotland and Ireland and low pressure south of Ireland produced a steady and northeast airflow. Rainfall for the spell varied from over 100% of average in the south to zero in the extreme north. The period was rather cold and extremely dry.

26th-end: High pressure dominated. It was mostly dry except for the extreme south, rather cold at night, and bright. Soil moisture deficits were quite high by the end of the month.

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TIME-LINE SEQUENCES OF WEATHER IN MAY

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 31

WEATHER

very wet... dry except in the south... outbreak of rain... dry

cool... mild... rather cold... mild

cold... relatively mild... cold/cold... cold... rather cold

variable... bright... dull... bright... variable... mostly dull... bright

moderate... light to fresh... light to moderate...
Top temperatures exceed 46°C in parts of Africa

At the beginning of the first week, the weather event making the news was the cyclone which hit Bangladesh. It appeared to make landfall on Sunday to the south of the port of Chittagong. Maximum sustained winds of 120 knots, gusting to 165 knots, were recorded, causing widespread damage and flooding. No rainfall totals were available for Bangladesh, but further north in the Indian state of Assam, 120mm of rain fell in 24 hours on the 4th at Nakhonratchasima and Dibrugarh caught 86mm in a similar period. The east coast of Australia also had quite a wet week as a moist easterly wind fed cloud and rain in off the Pacific Ocean. On the 4th, Williamstown, Smoky Cape and Coffin’s Harbour, all in New South Wales, caught 68, 120 and 101mm respectively. On the 8th, Coolangatta near Brisbane in southern Queensland measured 143mm, nearly double their monthly average. Finally on the 15th, it was the turn of Newcastle near Sydney, where 122mm was recorded in six hours during a thunderstorm with hail.

Many parts of Scotland enjoyed a taste of summer during the second week as easterly winds brought some unusually high temperatures. Such a place was the island of Tiree where the mercury rose to 21.7°C on the 12th — only half a degree off their May record. Muckle Fluga in the north of Scotland saw the thermometer reach a pleasant 18°C at noon on the 13th, some eight degrees higher than Madras. Further afield, Kidal in Mali was one of the week’s hotspots. Here, the minimum temperature early on Sunday the 15th was an incredibly hot 38.3°C (over 100°F). Down in the southern hemisphere, Port Elizabeth in the Cape Province of South Africa broke their May record on Saturday the 14th despite approaching the winter season, the thermometer peaking at a sizzling 85.5°C. In the United States, the President’s home town of Little Rock in Arkansas recorded a soggy spot with 92.7mm falling in just 24 hours until 0600 GMT on the 14th. Coming back to Europe, the town of Vigo in northwest Spain experienced quite a downpour during the second half of the week when 60mm fell in a 24-hour period.

A complex area of low pressure, centred to the northwest of Spain throughout much of the third week, gave western Europe some very unsettled weather. One of the wetter spots was the Portuguese city of Porto where there were 72mm of rain between Wednesday evening and dawn on Saturday — just ten minutes below the average rainfall for the whole month. Elsewhere, Freiburg in southwest Germany, just north of Basel, recorded 64mm of rain in 30 hours up to midday GMT on Thursday the 19th, exceeding the monthly norm of 73mm. The triumphant AC Milan team had a damp welcome home, with a huge 82mm of rain falling on the Italian city in the 24 hours up to dawn on Thursday.

Most easterly winds brought heavy rain to parts of the African continent, providing a large number of the most interesting world weather stories during the course of the final week in May. On the morning of Monday, 22nd, frost was fairly widespread across many parts of South Africa. In Johannesburg, the dawn minimum was -3°C, but it was even colder in the Orange Free State town of Bethlehem where temperatures fell to -8°C, two degrees below the known low for May. In contrast, Monday saw the Turkish capital of Ankara beat its old high temperature record for May with the second time in two days. On Monday, May’s temperature soared to 40.2°C, almost half a degree above the record known, and on Monday it was hotter again at 45°C. At 15°C, situated in southern Mauritania, also had a very warm start to the last week with Monday’s top temperature soaring to 46.2°C, half a degree above the record high for this time of year.

Towards the end of the week, parts of western Africa had some unusually heavy rains. N’Gaoua, located in the far southwest of Niger, reported 135mm of rain in the 24 hours up to dawn on Saturday, 2mm above the monthly average. To the southwest of N’Gaoua, at Mame-Souda, there was 95mm during the same period. Mopti, situated in Mali some 300 miles to the northwest of the capital Bamako, also had quite a soaking with 44mm falling from 0600 GMT on Friday to 0600 GMT on Saturday. (The average May rainfall for Mopti is around 22mm.) Similarly, southern winds pushed very hot air across Sicily during the first half of the week. The exceptional heat reached a peak on the afternoon of the 24th at Catania where the top temperature climbed to 38.3°C, more than four degrees above the previous record for May. Meanwhile was another hot spot with a temperature of 32.4°C, two degrees above the May record. Western Turkey also had a hot week with temperatures in Antalya rising to 39°C on Thursday.

Spring was wet overall and sunshine was below normal at most stations but mean temperatures were in and around normal for the season. All stations reported above average rainfall, ranging from 116% of normal in the case of Dublin Airport, to 180% at Shannon Airport, where it was the wettest spring since records began in 1945. Both Clones and Cavanmore Aerodrome enjoyed near normal amounts of spring sunshine; Claremorris on the other hand got only 80% of normal sun. Despite the fact that mean temperatures were close to normal, ranging from 8°C to 10°C, it was still the coldest spring for between five and eight years. It was only at a few western stations that maximum temperatures reached 20°C during the season. Air temperatures did remain above freezing throughout at some coastal stations but there were a few occurrences of air frost, elsewhere, Kilkenny’s -3°C being the lowest air temperature of the spring. It was also windy in the northwest, the mean wind speeds for the season being the highest on record at Belmullet and the windiest since 1967 at Malin Head.
Sunday 26th: A mild southerly airflow covered Ireland as frontal systems moved southwards. Rain or drizzle, mostly light fog. Fog in the south later. Winds southerly or westerly, light to moderate. Rainfall: to 6 mm generally, up to 15 mm in the west. Temperature: max. 13°C to 16°C, min. 10°C to 12°C inland, 9°C to 10°C coastal.

Monday 27th: A ridge of high pressure over the country was accompanied by warmer weather, more sunny spells, some light showers, and scattered thunderstorms. High temperatures in the east. Winds northerly or southerly, light to moderate. Rainfall: to 10 mm generally, up to 15 mm in the east. Temperature: max. 20°C to 22°C, min. 15°C to 17°C inland, 13°C to 16°C coastal.

Tuesday 28th: A strong pressure gradient developed between the high pressure system to the west and the low pressure system to the east. Strong westerly winds and heavy rain in the west. Winds southerly or westerly, strong to gale. Rainfall: to 25 mm generally, up to 40 mm in the west. Temperature: max. 21°C to 24°C, min. 16°C to 18°C inland, 14°C to 16°C coastal.

Wednesday 29th: A spell of wet and windy weather continued with strong winds and heavy rain. Winds southerly or westerly, strong to gale. Rainfall: to 25 mm generally, up to 40 mm in the west. Temperature: max. 18°C to 20°C, min. 14°C to 15°C inland, 12°C to 13°C coastal.

Thursday 30th: A spell of wet and windy weather continued with strong winds and heavy rain. Winds southerly or westerly, strong to gale. Rainfall: to 25 mm generally, up to 40 mm in the west. Temperature: max. 18°C to 20°C, min. 14°C to 15°C inland, 12°C to 13°C coastal.

Friday 31st: A strong pressure gradient developed between the high pressure system to the west and the low pressure system to the east. Strong westerly winds and heavy rain in the west. Winds southerly or westerly, strong to gale. Rainfall: to 25 mm generally, up to 40 mm in the west. Temperature: max. 18°C to 20°C, min. 14°C to 15°C inland, 12°C to 13°C coastal.

Saturday 1st: A spell of wet and windy weather continued with strong winds and heavy rain. Winds southerly or westerly, strong to gale. Rainfall: to 25 mm generally, up to 40 mm in the west. Temperature: max. 18°C to 20°C, min. 14°C to 15°C inland, 12°C to 13°C coastal.
## TEMPERATURE

<p>| County / Station | Mean max | Mean min | Mean deviation from average | Highest max | Lowest min | Lowest greatest minute \n|------------------|---------|---------|---------------------------|-------------|-----------|--------------------|
| CO. CORK (OSGPARK) | 15.1    | 6.4    | 10.5                      | 13.2        | 1.0       | 9.0                |
| CO. CLARE (OSGPARK) | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. CORK | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. DUBLIN (OSGPARK) | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. GALWAY (OSGPARK) | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. KERRY | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. CLARE (OSGPARK) | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. CORK | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. DUBLIN (OSGPARK) | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. GALWAY (OSGPARK) | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |
| CO. KERRY | 15.1    | 8.7    | 11.5                      | 20.6        | 1.3       | 9.0                |</p>
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<th>Mean deviation from average</th>
<th>Highest max</th>
<th>Lowest min</th>
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### Tables

#### County / Station

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<th>County / Station</th>
<th>WEATHER — NO. OF DAYS WITH</th>
<th>MEAN 0900 GND TEMP (°F)</th>
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#### WIND (kts)

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<th>Mean dir. speed</th>
<th>Max gust</th>
<th>Mean dir. speed</th>
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#### Frequency of Wind Direction

**Dublin Airport**

- **N**: 10.3
- **E**: 10.5
- **S**: 10.6
- **W**: 10.5

**Valentia Observatory**

- **N**: 10.5
- **E**: 10.6
- **S**: 10.6
- **W**: 10.6
Notes on the tables

A. General
1. Rainfall amounts are given in millimeters, temperature in degrees Celsius, sunshine duration in hours and wind speed in knots.
   (1 knot = 1.667 m.p.h.)
2. Rainfall amounts are measured at climatological stations at 0900 GMT and credited to the previous day. At synoptic stations daily totals refer to the 24-hour period ending at 0900 GMT 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.
3. 'Raindays' and 'wetdays' are days during which the total rainfall is not less than 0.2mm and 1.0mm respectively.
4. A 'day' for the purposes of this publication refers to the period from 0000 GMT on a particular day to 0000 GMT on the following day. (This is because climatological stations make their daily observations at 0000 GMT.)
5. The mean daily air temperature over a period is taken as the mean of the daily minimum and daily maximum (averaged separately for each period).
6. Days with air foals are those during which the minimum air temperature is 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 shoot grass.)
7. Mean soil and earth temperatures are based on readings taken at 0900 GMT.
8. A gust is a mean wind over a 10 minute period of 34 knots or more. A 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.
9. 'o' denotes that the value is calculated using one or more estimated readings.
10. Data from Northern Ireland is kindly provided by the Belfast Weather Centre.

B. Agmet
11. Calculated Potential Evapotranspiration (P.E.) values are based on values of temperature, sensible, wind speed and vapour pressure using the Penman formula. Because of formula limitations, negative values can occur in winter; these are replaced in the tables by zero. Measured P.E. values are those measured by means of soil and tanks sunk into the ground with their upper grass-covered ends at surface level.
12. 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, Meteor No. 1, 1969). Soil moisture surpluses are assumed to be removed by drainage and surface runoff 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 value of evaporation may be adjusted to avoid error due to insufficient rainfall.
13. Degree day totals are calculated using the method set out by McVicar in the Journal of Heating and Ventilating Engineers (Vol. 14 No. 18, Nov-Dec 1949).
14. Global solar radiation values are given in MJ/m², correct to two decimal places (34.9MJ/m² = 1kWh).