MONTHLY WEATHER BULLETIN NO. 348 MAY 2015

A great shot of asperitas clouds taken in Tralee, Co Kerry on May 28th. This wave-cloud was as a result of a strong stable south-southwesterly airflow ahead of an approaching cold front. The passage of the airflow over the mountains caused a repeated uplift and ascent on the lee side of the mountains which lead to the unusual shape. Asperitas is the first new cloud to be considered for addition to the International Cloud Atlas since the mid-1950's. (Picture courtesy of Anthony Dawson https://www.facebook.com/AnthonyDawsonPhotography)

COOL EVERYWHERE; EXTREMELY WET IN PARTS

Rainfall totals were nearly all above their Long-Term Average (LTA). Parts of the Northwest, Midlands along southern Atlantic coastal areas reported around double or more (200%+) of their normal rainfall for May. Percentage of LTA

ranged from 92% at Inishere, Co Galway to 267% at Ballivor (Hill of Down), Co Westmeath. Monthly accumulations ranged from 65.4 mm at Inishere to 259.6 mm at Cloone Lake, (Caragh River Area), Co Kerry. The month's wettest days



INSIDE



PRING REVIEW-PAGE THREE

Produced by Met Éireann, Glasnevin Hill, Dublin 9. Annual subscription €80 (excluding VAT of 23%)



or free online at www.met.ie Data analysis based on all available data and is correct at time of publication. For more information or for data enquires e-mail: enq@met.ie

> Data and graphics © Met Éireann

2 MAY 2015

Thunderstorms affected parts of the East on the 19th. Here, under the base of a cumulonimbus. mammatus (or mamma) clouds have formed over Dublin Bay. A characteristic of mammatus is their often smooth, udder like appearance which makes them one of the most distinctive clouds. Mammatus clouds form most frequently under the base of a cumulonimbus but can also be found underneath cirrus. cirrocumulus, altostratus, altocumulus and stratocumulus. (Picture courtesy of Gerry Dunne)



were mainly between the 2nd and the 5th, with Omeath, Co Louth recording the month's wettest day with 80.6 mm on the 2nd. The number of wet days (days with 1 mmor more) ranged from 12 days at some Dublin stations and in Wexford to 29 days at Mulrany (Doughbeg), Co Mayo. The number of very wet days (days with 10 mmor more) ranged from zero at some stations in Mayo and Donegal to 12 at Maam Valley, Co Galway.

All monthly mean air temperatures were on or below average with differences from LTA of more than -1.0°C in the West and North. Differences below LTA were as much as -1.6°C at four stations; Knock Airport, Co Mayo (the month's lowest mean temperature of 8.6°C), Newport, Co Mayo (mean temperature of 10.2°C), Ballina Golf Club, Co Mayo (mean temperature of 9.4°C) and Markree, Co Sligo (mean temperature of 9.5°C). Mean temperatures were highest at Waterford (Tycor) with 11.7°C (the only station with an on average LTA in May). The month's highest air maximum was 21.2°C at Castleconnell, Co Limerick on the 23rd while the station also reported the month's lowest minimum with -1.6°C on the 1st. The lowest grass temperature was at Straide, Co

Mayo on the 8th with -5.5°C. The number of days with air frost were up to two at a few stations in the Northwest, with air frost reported on the 1st, 8th and 13th. The number of days with ground frost ranged from zero at many stations located mainly in the southern coastal countries to 10 at Kilkenny (Greenhills).

Sunshine totals were mainly below LTA. Percentage of LTA values and monthly totals were lowest at Knock Airport, Co Mayo with 59% and 102.7 hours, while the month's highest percentage of LTA value and monthly total was at Dungarvan (Carriglea), Co Waterford with 101% and 191.6 hours. The month's sunniest day was reported at Sherkin Island on the 12th with 13.5 hours.

Wind & Elements:

Monthly mean wind speeds ranged from 7.2 knots (13.3 km/h) at both Fermoy (Moore Park), Co Cork and Mullingar, Co Westmeath to 16.4 knots (30.4 km/h) at Malin Head, Co Donegal. Gale force winds were reported on the 2nd, 11th and 18th in Atlantic coastal areas, with both the month's highest 10-minute mean wind speed and highest gust reported on the 11th at Malin Head with 40 knots (74km/h) and 52 knots (96km/h), respectively.

MAINLY COOL, WET AND SUNNY

Nearly all seasonal mean air temperatures were below their LTA for spring, with the exception of some stations in Cork, Limerick, Tipperary and Waterford. Monthly mean air temperatures were mainly on or below LTA in March and May, with variable monthly means reported in April. Differences from spring LTAs ranged from -1.3°C at Markree, Co Sligo with a seasonal mean air temperature of 7.6°C to 0.4°C at Waterford (Tycor) with a seasonal mean air temperature of 9.8°C. Seasonal mean air temperatures ranged from 7.3°C at Knock Airport, Co Mayo (difference from LTA -0.5°C) to 10.0°C at Dooks, Co Kerry. Nearly all stations reported cooler spring conditions in 2013. Seasonal highest maximum temperatures were mainly recorded on April 22nd and 23rd and between May 21st and 26th with the highest seasonal temperature of 21.5°C recorded on April 23rd at both Ardfert (Liscahane), Co Kerry and Dooks, Co Kerry. The season's lowest air and grass temperatures were mainly on March 2nd, 14th, 18th and 19th with spring's lowest air minimum of -5.1°C reported on March 18th at Casement Aerodrome, Co Dublin, its lowest March minimum in five years. The season's lowest grass minimum was -9.8°C reported at Thomastown (Mt Juliet), Co Kilkenny on March 19th. The number of days with air frost ranged from zero at around a quarter of stations to 25 days at Markree, Co Sligo, while the number of days with ground frost ranged from seven at Sherkin Island, Co Cork to 54 at Cloosh, Co Galway.

The majority of seasonal rainfall totals were above LTA with below LTA rainfall in parts of southern half of the country. March and April reported variable monthly LTAs, with May reporting mainly above LTA rainfall totals. Percentage of spring LTAs ranged from 64% in the Moanbane Mountains, Co Wicklow with a total of 214.9 mm to 170% at Crolly (Filterworks), Co Donegal with a total of 479.8 mm, its highest spring rainfall total since the station opened in 1972. Seasonal totals in a lowlying regions (areas below 200m) ranged from 150.6 mm at Gowran, Co Kilkenny to 659.2 mm a Dummin

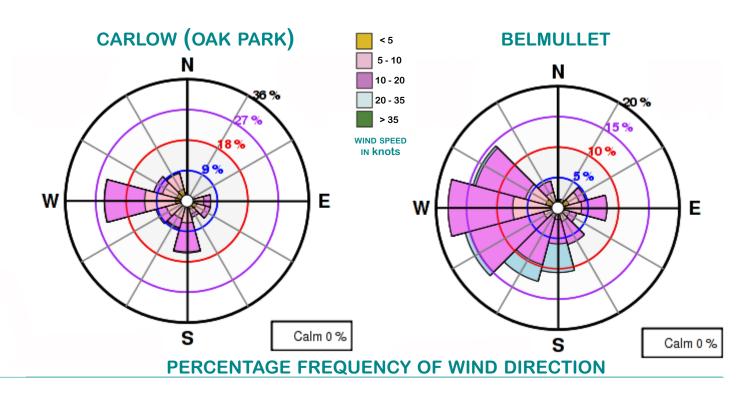
Tawnyard, Co Mayo. The overall highest spring rainfall accumulation was at the Glentornan Mountains (Grogan More), Co Donegal with 686.2 mm (161% of LTA), its wettest spring on available record since it opened in 1948. Three quarters of stations reported their wettest day during the first 10 days of May with over half reporting theirs on May 2nd. The wettest day of spring was reported at Omeath, Co Louth on May 2nd with 80.6 mm, its wettest spring day on available record since the station opened in 1943. The number of seasonal wet days (days with 1 mm or more) ranged from 26 at Bannow, Co Wexford to 65 at Derryhenny Doochary, Co Donegal, its highest amount of spring wet days since 1986.

Sunshine totals were near or above their seasonal LTAs. Both March and April reported above monthly LTA sunshine, with variable LTA sunshine reported in May. Percentage of spring LTA sunshine values ranged from 96% at Knock Airport, Co Mayo (lowest seasonal total of 390.6 hours) to 129% at Dungarvan (Carriglea), Co Waterford (highest seasonal total of 581.0 hours), its sunniest spring in five years. The season's sunniest day was April 21st at Dublin Airport with 13.9 hours. The number of dull days (days with less than 0.5 hours of sunshine) ranged from nine at Casement Aerodrome, Co Dublin to 26 at Knock Airport, Co Mayo.

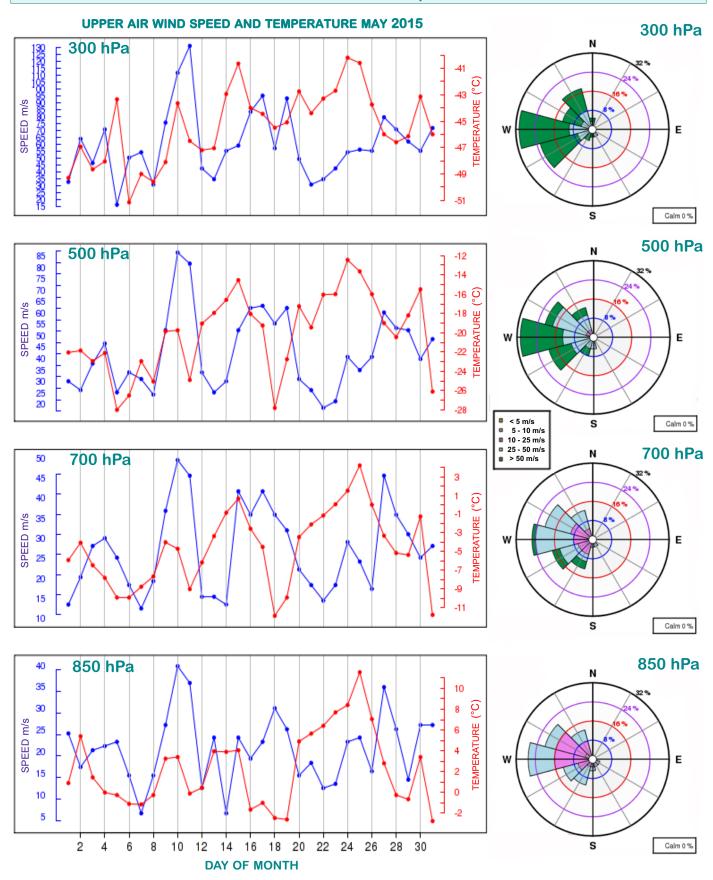
Seasonal mean wind speeds ranged from 6.6 knots (12.2 km/h) at Mullingar, Co Westmeath to 15.1 knots (28.0 km/h) at both Mace Head, Co Galway and Malin Head, Co Donegal. Eighteen days had gales, twelve days in March with three days in both April and May. Severe gales were only reported during March on the 1st, 2nd, 3rd, 7th, 9th, 28th, 30th and 31st with the only report of storm strength winds on March 9th. Spring's highest gust and highest 10-minute wind speed were both at Malin Head with spring's highest gust of 65 knots (120 km/h) on March 31st and the highest 10-minute wind speed of 49 knots (91 km/h) on March 9th.

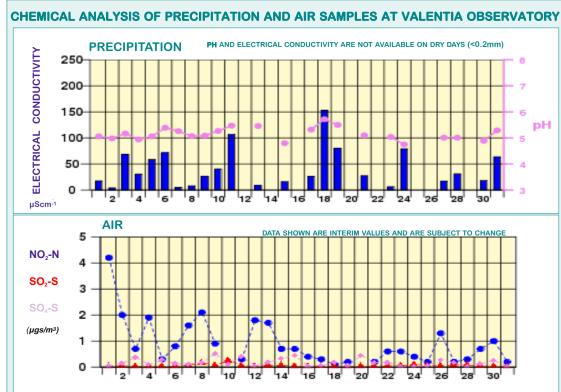
| | | RAINF | ALL (m | m) | | TEMPERATURE (°C) | | | | | SUNSHINE (HRS) | | | | WIND | | | | |
|---|----------------|-------------|--------------|--------------------|-------------------|------------------|---------------------------|------------------|-----------------|-----------------------------|--------------------------|----------------|-----------------|------------------|---------------------|-------------------------|--|----------------------|--------------------------------|
| COUNTY/STATION | TOTAL | % OF LTA | MOST IN A | NO. OF RAINDAYS | NO. OF WETDAYS | MEAN | DIFFERENCE FROM LTA | EXTRI MAXIMUM | EMES MINIMUM | NO. OF DAYS GROUND FROST | NO. OF DAYS AIR FROST | TOTAL | % OF AVERAGE | MOST IN A DAY | NO. OF DULL DAYS | HIGHEST GUST (KNOTS) | HIGHEST10-MIN WIND SPEED (KNOTS) | NO. OF DAYS GALES | NO. OF DAYS GUSTS ≽34 KNOTS |
| CO CARLOW CARLOW (OAK PARK) CO CAVAN | 168.9 | 94 | 20.9 | 52 | 36 | 8.6 | -0.7 | 19.2 | -2.2 | 41 | 8 | | | | | 53 | 35 | 2 | 14 |
| BALLYHAISE CO CLARE | 274.9 | 125 | 24.0 | 55 | 44 | 7.6 | -1.0 | 18.4 | -3.5 | 36 | 16 | | | | | 46 | 27 | 0 | 14 |
| SHANNON AIRPORT CO CORK | 276.7 | 137 | 18.6 | 53 | 44 | 9.2 | -0.6 | 20.0 | -1.1 | 19 | 5 | 548.5 | 126 | 13.3 | 12 | 56 | 39 | 3 | 21 |
| CORK AIRPORT ROCHE'S POINT CO DONEGAL | 242.7 229.8 | 95 115 | 31.9 36.5 | 50 46 | 37 32 | 8.6 9.3 | -0.1 -0.2 | 18.5 18.6 | -1.8 0.7 | 29 15 | 3 0 | 514.5 | 113 | 13.4 | 15 | 46 51 | 33 38 | 0 5 | 22 28 |
| FINNER MALIN HEAD | 320.7 322.9 | 125 153 | 22.7 | 57 60 | 45 46 | 8.2 7.9 | -0.6 -0.7 | 19.1 17.6 | -0.5 -0.7 | 27 22 | 6 1 | | | | | 60 65 | 40 49 | 8 15 | 31 42 |
| CO DUBLIN CASEMENT AERODROME DUBLIN AIRPORT | 209.0 | 129 115 | 17.2 28.2 | 51 47 | 37 35 | 8.1 7.8 | -0.6 -0.8 | 19.1 18.4 | -5.1 -4.0 | 38 36 | 11 14 | 494.0 551.7 | 112 120 | 13.3 13.9 | 9 | 59 56 | 41 | 4 | 24 27 |
| CO KERRY VALENTIA OBSERVATORY | 313.8 | 100 | 25.2 | 58 | 50 | 9.4 | -0.3 | 20.2 | 0.0 | 15 | 1 | 483.8 | 112 | 13.2 | 18 | 49 | 34 | 1 | 22 |
| CO MAYO BELMULLET KNOCK AIRPORT | 279.0 374.5 | 115 128 | 18.0 23.6 | 64 63 | 45 52 | 8.7 7.3 | -0.6 -0.5 | 18.0 18.5 | 0.7 -1.8 | 17 25 | 0 | 482.6 390.6 | 109 95 | 13.8 13.1 | 19 26 | 59 53 | 44 34 | 7 | 27 26 |
| CO TIPPERARY GURTEEN CO WESTMEATH | 255.9 | 127 | 20.2 | 52 | 43 | 8.2 | -0.6 | 19.2 | -4.2 | 43 | 12 | | | | | 52 | 33 | 0 | 15 |
| MULLINGAR CO WEXFORD | 292.5 | 138 | 28.7 | 52 | 42 | 7.8 | -0.7 | 19.2 | -4.6 | 49 | 15 | | | | | 40 | 21 | 0 | 4 |
| JOHNSTOWN CASTLE | 231.1 | 106 | 26.0 | 48 | 34 | 8.6 | -0.3 | 18.9 | 0.5 | 32 | 0 | | | | | 46 | 30 | 0 | 16 |

| | | | WIND | (kno | ts) | | | | | EL | EMEN ³ | TS (r | no.of | days) |
|--|---------------------|-------------------------------|-------------------------|----------------------|----------------|-------------------------------|---------------|-------------|----------------|------|-------------------|-------|---------|-------|
| COUNTY / STATION | MEAN Speed | MAX. 10-MIN. DIR. SPEED | MEAN Date/Hour | | MAX. Peed | GUST Date/time | DAYS GALES | | HOURS WITH | SNOW | SNOW LYING | HAIL | THUNDER | FOG |
| CO CARLOW OAK PARK CO CAVAN | 8.8 | 210° 24 | 11/11 | 260° | 38 | 18/1342 | 0 | 5 | 9 | | | | | |
| BALLYHAISE CO CLARE | 7.3 | 220° 25 | 11/10 | 220° | 40 | 11/1042 | 0 | 3 | 10 | | | | | |
| SHANNON AIRPORT | 11.0 | 230° 28 270° 28 | 11/16 18/15 | 240° | 40 | 11/1613 | 0 | 5 | 24 | 0 | 0 | 2 | 0 | 0 |
| CO CORK FERMOY (MOORE PARK) SHERKIN ISLAND ROCHE'S POINT | 7.2 13.5 13.0 | 280° 21 280° 32 210° 30 | | 270° 280° 280° | 37 45 42 | 18/1242 18/1624 18/1457 | 0 0 0 | 1 7 8 | 1 35 28 | | | | | |
| CORK AIRPORT CO DONEGAL | 10.4 | 280° 26 | | 230° | 39 | 11/1753 | 0 | 4 | 9 | 0 | 0 | 0 | 0 | 7 |
| MALIN HEAD FINNER | 16.4 13.0 | 230° 40 220° 29 270° 29 | 11/14 11/17 16/ 6 | 220° 220° | | 11/1403 11/1149 | 2 0 | 14 10 | 122 42 | | | | | |
| CO DUBLIN DUBLIN AIRPORT CASEMENT AERODROME CO GALWAY | 12.6 11.4 | 270° 32 250° 27 | 18/15 12/12 | 260° 230° | 43 39 | 12/ 908 11/1919 | 0 | 7 | 34 23 | 0 | 0 | 2 2 | 0 | 1 0 |
| MACE HEAD ATHENRY CO KERRY | 16.2 8.7 | 290° 35 220° 23 | 18/18 11/16 | 300° 220° | 46 43 | 18/1825 11/1659 | 1 | 14 2 | 96 7 | | | | | |
| VALENTIA OBSERVATORY CO MAYO | 10.3 | 290° 26 | 18/15 | 290° | 40 | 18/1517 | 0 | 7 | 22 | | | | | |
| CLAREMORRIS BELMULLET NEWPORT | 9.5 12.8 11.0 | 210° 27 200° 36 290° 31 | 11/13 11/12 18/16 | 220° 190° 290° | 43 47 42 | 11/1351 11/ 611 6/ 447 | 0 1 0 | 3 7 7 | 12 49 41 | | | | | |
| KNOCK AIRPORT | 10.9 | 230° 26 280° 26 | 11/16 31/15 | 210° 270° | 42 43 | 11/1452 31/1352 | 0 | 8 | 31 | 0 | | | | 7 |
| CO MEATH DUNSANY (GRANGE) | 9.7 | 240° 24 | 12/12 | 250° | 36 | 12/1207 | 0 | 2 | 7 | | | | | |
| CO ROSCOMMON MOUNTDILLON | 8.5 | 300° 23 230° 23 | 6/10 11/17 | 320° | 38 | 19/ 923 | 0 | 2 | 7 | | | | | |
| CO TIPPERARY GURTEEN (AG COLLEGE) CO WESTMEATH | 9.6 | 230° 24 | 11/11 | 200° | 43 | 3/1428 | 0 | 3 | 4 | | | | | |
| MULLINGAR | 7.2 | 100° 19 170° 19 | 2/ 7 10/ 9 | 230° | 33 | 11/1648 | 0 | 0 | 0 | | | | | |
| CO WEXFORD JOHNSTOWN CASTLE | 9.4 | 250° 23 290° 23 | 6/10 19/13 | 300° | 40 | 19/1308 | 0 | 3 | 5 | | | | | |



Upper Atmosphere wind and temperature readings are made at Valentia Observatory twice a day by a radiosonde (a balloon with instruments attached). Shown below are daily average wind speeds and temperatures at defined pressure levels, 850, 700, 500 and 300 hPa, corresponding approximately to heights of 1.5, 3, 6 and 10 km. Monthly wind roses are also shown for each pressure level.

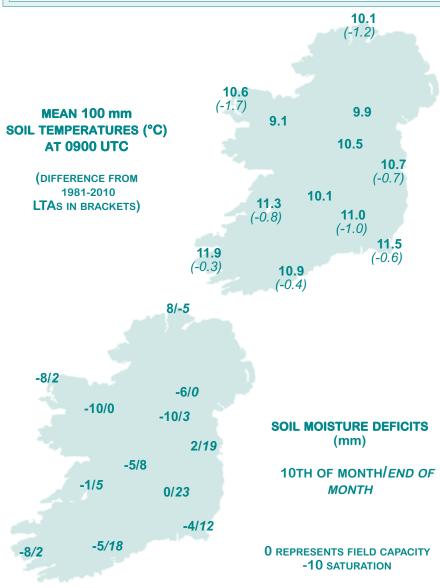




Acid rain occurs when pollutants combine with moisture in the air to form sulphuric or nitric acid. pH is the simplest way of measuring the acidity of precipitation. Usually pH of 7.00 is considered neutral but this is not the case in rainfall samples. Pure water in the atmosphere has an equilibrium pH value of 5.65 at 20°C owing to carbon dioxide in the air dissolving to form carbonic acid. Any value below pH 5.65 is considered acid while any value above is considered alkaline.

Conductivity measures the total ion activity in the rainfall, i.e. the higher the conductivity the greater the number of ions.

Sulphur dioxide and sulphate in air contribute to the formation of sulphuric acid; nitrate in air contributes to the formation of nitric acid.



MEAN SOIL TEMPERATURES (°C) AT 0900 UTC

| CO CARLOW CARLOW (OAK PARK) 11.0 10.9 | 10.7 |
|--|------|
| CO. CAVAN BALLYHAISE 9.9 10.0 CO CLARE | 10.7 |
| BALLYHAISE 9.9 10.0 CO CLARE | |
| CO CLARE | |
| | 11.9 |
| | 11.9 |
| SHANNON AIRPORT 11.3 11.7 | |
| CARRON 10.4 | 10.7 |
| CO CORK | |
| ROCHE'S POINT 11.6 11.5 | |
| FERMOY (MOORE PARK) 11.8 11.8 | |
| CORK AIRPORT 10.9 11.1 | |
| SHERKIN ISLAND 11.7 11.4 | |
| BALLINCURRIG (PEAFIELD) 11.2 10.9 | 11.5 |
| CO DONEGAL | |
| MALIN HEAD 10.1 9.8 | 10.1 |
| CO DUBLIN | |
| PHOENIX PARK 12.2 12.5 | |
| DUBLIN AIRPORT 10.1 10.4 | |
| CASEMENT AERODROME 10.7 10.6 | 10.9 |
| CO KERRY | |
| VALENTIA OBSERVATORY 11.9 12.2 | 12.3 |
| CO KILKENNY | |
| (| 12.8 |
| CO LIMERICK | |
| MOUNT RUSSELL 10.4 11.1 | |
| CO MAYO | 44.5 |
| BELMULLET 10.6 11.0 | 11.7 |
| STRAIDE 10.9 | 0 4 |
| KNOCK AIRPORT 9.1 9.4 | 9.4 |
| CO MEATH | 10 1 |
| WARRENSTOWN 10.5 11.0 DUNSANY (GRANGE) 10.0 10.6 | |
| , , | 11.0 |
| CO TIPPERARY | |
| GURTEEN (AG COLLEGE) 10.1 10.2 | |
| FETHARD (PARSONSHILL) 10.0 10.6 CO WATERFORD | |
| | |
| DUNGARVAN (CARRIGLEA) 12.4 | 12.5 |
| MULLINGAR 10.5 10.8 | 11.3 |
| CO. WEXFORD | 11.3 |
| JOHNSTOWN CASTLE 11.5 11.1 | 11.3 |
| JFK PARK 12.2 12.2 | |
| CO WICKLOW | 17.4 |
| ASHFORD (CRONYKEERY) 12.1 11.9 | 12.3 |

| 10-DAY VALU | | | NFALL mm) | | | | | ERATU | | | | | SUNS (hor | SHINE urs) |
|--|---|---|---|-------------------------------------|---------------------------------|--|--|--|---|------------------------------------|--------------------|-------------------------------------|--------------------------------------|---------------|
| AGROMETEOR(STATIO) STATION | DLOGICAL | 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 | MEAN 10CM AT 0900H | меан 30см ат 0900н | TOTAL NO. OF HOURS | % OF AVERAGE |
| CO CORK BALLINCURRIG (PEAFIELD) | 1-10 11-20 21-END MONTH | 112.2 32.2 12.5 156.9 | 10 9 5 5 6 2 173 21 16 | 13.2 14.4 15.9 14.6 | 6.1 6.5 7.2 6.6 | 9.7 10.5 11.5 10.6 -0.1 | 3.4 4 3.9 20 3.0 30 3.0 30 | 0 53 0 61 0 79 0 193 | 10 3.2 15 3.7 27 2.8 51 2.8 | 4 0 20 0 30 0 30 0 | 11.2 12.5 | 10.1 11.5 12.9 11.5 | 26.1 68.1 60.8 155.0 | 81 |
| CO DONEGAL GLENTIES HATCH | 1-10 ERY 11-20 21-END MONTH | 102.2 39.7 55.1 197.0 2 | 10 8 8 7 11 8 225 29 23 | 13.3 13.5 12.7 13.1 | 4.7 6.1 6.9 5.9 | 9.0 9.8 9.8 9.5 -1.2 | 0.1 1 0.7 13 3.0 30 0.1 1 | 0 49 0 55 0 60 0 163 | 11 -2.6 11 -1.9 9 1.5 31 -2.6 | 2 4 13 1 30 0 2 5 | - - - | - - - | - - - | - |
| CO KERRY ARDFERT (LISCAHANE) | 1-10 11-20 21-END MONTH | 68.6 28.4 28.4 125.4 | 10 8 6 4 9 7 1 76 25 19 | 14.0 14.6 14.3 14.3 | 6.5 7.4 8.0 7.3 | 10.3 11.0 11.2 10.8 -0.7 | 4.6 5 4.2 13 5.0 27 4.2 13 | 0 58 0 66 0 74 0 198 | 15 3.7 18 2.9 19 4.1 51 2.9 | 5 0 13 0 27 0 13 0 | - - - | - - - | 25.4 61.4 30.9 117.7 | 64 |
| CO MONAGHAN CARRICKMACROSS | 1-10 11-20 21-END MONTH | 87.7 12.2 19.8 119.7 | 9 7 7 4 6 4 182 22 15 | 13.4 13.4 14.8 13.9 | 5.5 4.8 6.8 5.8 | 9.5 9.1 10.8 9.8 -1.1 | 1.0 1 0.1 13 2.3 21 0.1 13 | 0 52 0 49 0 71 0 172 | 11 -3.3 10 -3.1 20 -1.7 41 -3.3 | 1 1 13 2 30 2 1 5 | - - - | - - - | - - - | ı |
| CO WATERFORD DUNGARVAN (CARRIGLEA) | 1-10 11-20 21-END MONTH | 104.7 27.8 16.7 149.2 | 9 8 4 3 5 4 184 18 15 | 14.2 15.1 17.0 15.5 | 6.7 7.1 7.8 7.2 | 10.5 11.1 12.4 11.4 -0.1 | 4.2 4 3.6 13 2.5 30 2.5 30 | 0 61 0 67 0 89 0 217 | 14 0.0 19 0.1 34 0.4 67 0.0 | 4 0 13 0 30 0 4 0 | - - - | 11.0 12.4 14.0 12.5 | 34.6 76.3 80.7 191.6 | 101 |
| CO WEXFORD JFK PARK | 1-10 11-20 21-END MONTH | 104.1 27.4 20.3 151.8 2 | 9 9 6 3 4 4 205 19 16 | 13.2 14.3 16.5 14.7 | 6.5 6.1 7.9 6.9 | 9.9 10.2 12.2 10.8 -0.4 | 4.6 4 2.1 20 4.1 30 2.1 20 | 0 54 0 59 0 86 0 199 | 11 -0.2 14 -1.4 32 0.2 56 -1.4 | 4 1 20 1 28 0 20 2 | | 12.0 13.1 14.8 13.4 | - - - | - |
| CO WICKLOW ASHFORD (CRONYKEERY) | 1-10 11-20 21-END MONTH | 90.2 16.0 6.9 113.1 | 10 8 5 4 5 2 166 20 14 | 13.7 14.4 16.2 14.8 | 6.4 6.8 8.0 7.1 | 10.1 10.6 12.1 11.0 -0.1 | 2.9 1 3.0 13 2.9 27 2.9 1 | 0 57 0 63 0 85 0 205 | 13 -3.9 16 -3.4 31 -3.6 61 -3.9 | 1 2 13 2 27 2 1 6 | 11.5 13.9 | 11.1 11.9 13.7 12.3 | 26.3 62.7 55.4 144.4 | 74 |

| P.E. (PEN | IMAN) | GLOE | BAL SOL (MJ/r | AR RADI | IATION | | MONTHLY EVAPORATION (mm) |
|--|------------|-------------------------------------|------------------|-----------|----------|--------|--|
| STATION /COUNTY | TOTAL (mm) | STATION /COUNTY | 1ѕт-10тн | 11тн-20тн | 21ST-END | TOTAL | FROM CLASS A PAN |
| CO CARLOW CARLOW (OAK PARK) | 71 | CO CARLOW CARLOW (OAK PARK) * | 127.61 | 169.76 | 207.50 | 504.87 | MONTHLY MONTHLY RAINFALL EVAPORATION |
| CO CAVAN BALLYHAISE CO CLARE | 63 | CO CAVAN BALLYHAISE* | 115.99 | 171.69 | 170.91 | 458.59 | COUNTY/ STATION (mm) (mm) |
| SHANNON AIRPORT | 71 | CO CORK ROCHE'S POINT* | 126.87 | 193.32 | 204.57 | 524.76 | CO KERRY VALENTIA OBSERVATORY 128.6 81.2 |
| CORK AIRPORT CO DONEGAL MALIN HEAD | 64 62 | CO DONEGAL MALIN HEAD* | 139.40 | 184.74 | 168.98 | 493.12 | CO KERRY NORTH KERRY LANDFILL N/A N/A |
| CO DUBLIN DUBLIN AIRPORT | 69 | CO DUBLIN DUBLIN AIRPORT* | 129.66 | 183.48 | 200.50 | 513.64 | CO MAYO NEWPORT (FURNACE) 161.1 49.6 |
| CASEMENT AERODROME CO KERRY VALENTIA OBS. | 68 67 | CO KERRY VALENTIA OBS.* | 139.40 | 184.74 | 168.98 | 493.12 | CO OFFALY DERRYGREENAGH 136.8 67.5 CO WATERFORD |
| CO MAYO BELMULLET | 65 | CO MAYO BELMULLET* | 127.23 | 186.75 | 166.65 | 480.63 | DUNGARVAN (CARRIGLEA) 149.2 90.4 CO WEXFORD |
| KNOCK AIRPORT CO TIPPERARY GURTEEN (AG. COLLEGE) | 55 64 | CO TIPPERARY GURTEEN (AG.COLLEGE) * | 143.51 | 165.38 | 182.91 | 491.80 | JFK PARK 151.8 86.2 |
| CO WESTMEATH MULLINGAR | 66 | CO WESTMEATH MULLINGAR* | 129.86 | 163.27 | 186.00 | 479.13 | GLOBAL SOLAR RADIATION VALUES FOR STATIONS MARKED * ARE PROVISIONAL |
| CO WEXFORD JOHNSTOWN CASTLE | 67 | CO WEXFORD JOHNSTOWN CASTLE* | 120.24 | 190.84 | 217.90 | 528.98 | * ARE FROM AUTOSOL INSTRUMENTS RAINFALL VALUES MARKED * ARE ESTIMATED. |

Friday 1st: Most of the country was cold and frosty overnight, however cloud in the Southwest kept night-time temperatures higher. It was a sunny day in the North and East but progressively less sunny further south as a result of the advancing cloud and rain. Cool for early May. Winds were moderate, northeasterly.

Rainfall: Nil at numerous locations to 35.7 mm at Rosscarberry (Froe)
Temperature: Lowest max. 9.5°C at Malin Head, Fethard (Parsonshill), highest max. 15.2°C
at Ardtarmon. Lowest min. -1.6°C at Castleconnell, highest min. 8.8°C at Sherkin Island
Sunshine: Nil at numerous locations to 8.6 hours at Dublin Apt

Saturday 2nd: Bands of rain, moving in from the Southwest, crossed the country through the day. The heaviest of the rain was in the South and East. There was a little sunshine in the North but mainly overcast. Winds were fresh to strong, southeasterly.

Rainfall: 1.5 mm at Killadoon to 80.6 mm at Omeath
Temperature: Lowest may 8.0°C at Malin Head, highest may 16.0°C

Temperature: Lowest max. 8.0° C at Malin Head, highest max. 16.0° C at Ardfert (Liscahane). Lowest min. 1.9° C at Finner, highest min. 8.5° C at Valentia Obs

Sunshine: Nil at numerous locations to 0.9 hours at Belmullet

Sunday 3rd: Rain in the East and North through early morning, with just some showers and sunny spells elsewhere. Scattered heavy and prolonged showers through the afternoon and evening, with some good bright spells also, but these died away by evening. Winds were moderate, south to southwest.

Rainfall:Nil at New Ross W.W. to 23.7 mm at Lecarrow

Temperature: Lowest max. 12.9°C at Sherkin Island, highest max. 18.0°C at Cavan (Drumconnick), Springfield Castle. Lowest min. 4.3°C at Knock Apt, highest min. 11.0°C at Dooks

Sunshine: 0.1 hours at Sherkin Island to 5.2 hours at Dublin (Glasnevin)

Monday 4th: A mostly dry day, with some good sunny periods, but again some showers in the West. Rain reached Munster and south Leinster by evening, with southeasterly winds increasing too with the rain. Winds were moderate, southwesterly.

Rainfall: 1.0 mm at Illies (Pollan Dam Waterworks) to 26.1 mm at Roscommon (Vocational School)

Temperature: Lowest max. 11.8°C at Delphi Lodge, highest max. 16.4°C at Listowei (Bunaghara). Lowest min. 3.1°C at Cork Apt, highest min. 9.2°C at Sherkin Island Sunshine: 1.4 hours at Valentia Obs to 8.9 hours at Dublin Apt

Tuesday 5th: It was wet in the North and Northwest all day. Sunny spells and scattered showers followed a clearance in the South and East. Showers became more widespread during the evening and into the night. Winds were light to moderate, southwesterly.

Rainfall: 0.6 mm at New Ross W.W. to 46.2 mm at Lough Glencar Temperature: Lowest max. 8.3°C at Knock Apt, highest max. 14.9°C at Castleconnell. Lowest min. 3.4°C at Springfield Castle, highest min. 8.5°C at Dun Laoghaire Sunshine: Nil at numerous locations to 8.7 hours at Shannon Apt

Wednesday 6th: Rain in the morning, but sunny spells in southern areas. A lot of dry weather through the afternoon with good sunny periods but also with some heavy showers. Most of the showers died out during the evening and night. Winds were moderate to fresh, northwesterly.

Rainfall: Nil at numerous locations to 16.8 mm at Silvermines Mtns.(Curreeny)

Temperature: Lowest max. 10.2°C at Malin Head, highest max. 15.5°C at Dungarvan (Carriglea) 15.5°C at JFK Park, Cloyne (Lisanley). Lowest min. 3.5°C at Ballycroy (Knockmoyleen), highest min. 8.0°C at Roches Pt

Sunshine: 1.2 hours at Knock Apt to 8.8 hours at Sherkin Island

Thursday 7th: There were bright/sunny spells and scattered showers, mainly in Leinster, Munster and northern parts of Ulster. Winds were light to moderate, west to northwest.

Rainfall: Nil at numerous locations to 16.2 mm at Glenvickee (Caragh River Area)
Temperature: Lowest max. 10.0°C at Malin Head, highest max. 15.1°C at Glengarriff
(Ilnacullin), Listowel (Bunaghara). Lowest min. 1.0°C at Straide, highest min. 9.1°C at
Shorkin leland

Sunshine: 2.2 hours at Arklow (Ballyrichard Hse) to 11.8 hours at Valentia Obs

Friday 8th: A day marked by heavy rain in the South and East, although northwestern extremes remained mostly dry. Temperatures were below average and only the far north had any sunshine. Winds were light to moderate, variable in direction.

Rainfall: Nii at numerous locations to 38.4 mm at Wexford (Newtown W.W.)
Temperature: Lowest max. 7.7°C at Fethard (Parsonshill), highest max. 14.5°C at Mullagh (Carrowlagan). Lowest min. -0.9°C at Ballina Golf Club, highest min. 8.6°C at Roches Pt Sunshine: Nil at numerous locations to 3.6 hours at Valentia Obs Saturday 9th: There was some patchy rain in the Southwest overnight but it was generally dry and remained so through the morning and into the early afternoon. By mid-afternoon a band of patchy rain began spreading into the West, quickly crossing the country. Mild, good spells of sunshine everywhere. Winds were light, variable in direction.

Rainfall: Nil at numerous locations to 34.5 mm at Leenane (Glanagimla)
Temperature: Lowest max. 12.4°C at Roches Pt, highest max. 19.5°C at Mullagh
(Carrowlagan). Lowest min. 3.6°C at Maam Valley, highest min. 9.0°C at Ballycroy
(Knockmoyleen)

Sunshine: 2.4 hours at Edenderry (Ballinla) to 6.5 hours at Dungarvan (Carriglea)

Sunday 10th: A band of rain began to impinge on the west coast during the morning. This rain made only very slow progress across the country, a clearance followed into the West by mid-afternoon, but it was still raining in the Southeast by the end of the day. Winds were fresh to strong, southwesterly.

Rainfall: Nil at Dublin (Ringsend) to 41.5 mm at Cloone Lake (Caragh River Area)
Temperature: Lowest max. 12.5°C at Roches Pt, highest max. 17.3°C at Dublin (Glasnevin).
Lowest min. 5.1°C at Mt Russell, highest min. 11.6°C at Listowel (Bunaghara)
Sunshine: Nil at numerous locations to 3.3 hours at Belmullet

Monday 11th: Rain cleared the Southeast in the early hours of the morning. Later, heavy showers moved in from the Atlantic. These showers continued through the day and were heaviest in the West and North, but dying out further East. Winds were fresh to strong, southwesterly. Rainfall: Nil at numerous locations to 124 mm at Coomclogh, Castlebar (Burren) Temperature: Lowest max. 12.7°C at Mace Head, highest max. 17.9°C at Dun Laoghaire. Lowest min. 6.7°C at Mt Russell, highest min. 11.9°C at Dublin (Glasnevin) Sunshine: 3.6 hours at Cork Apt to 11.6 hours at Dublin (Glasnevin)

Tuesday 12th: Heavy showers overnight and throughout the morning but dying out during the afternoon. Sunny everywhere (between showers), temperatures a little below normal for mid-May and the fresh southwest winds, in the early part of the day, made it feel cooler. Winds were moderate to fresh, southwesterly.

Rainfall: Nil at numerous locations to 7.8 mm at Carrigallen (Calloughs)
Temperature: Lowest max. 11.5°C at Knock Apt, highest max. 17.4°C at Waterford (Tycor).
Lowest min. 4.4°C at Knock Apt, highest min. 9.0°C at Sherkin Island, Ashford (Cronykeery),
Cashel (Ballydoyle Hse)

Sunshine: 3.5 hours at Knock Apt to 13.5 hours at Sherkin Island

Wednesday 13th: Cool and dry overnight. It was a bright morning with good sunshine continuing into the afternoon and evening. Winds in the Southwest picked up later as a frontal depression approached the country, bringing rain to the Southwest shortly before midnight. Winds were light to moderate, variable in direction.

Rainfall: Nil at numerous locations to 19.7 mm at Bartlemy
Temperature: Lowest max. 11.4°C at Dublin (Merrion Square), highest max. 19.2°C at Ardfert
(Liscahane). Lowest min. -0.4°C at Markree, highest min. 7.0°C at Malin Head
Sunshine: 6.5 hours at Edenderry (Ballinla) to 12.9 hours at Valentia Obs

Thursday 14th: Rain and drizzle continued over southern half of country, but dry over northern half, with some good sunny periods in the extreme North. The afternoon was mainly dry with some sunny periods. The evening and night continued dry with good sunny/clear periods. Some ground frost developed after dark. Winds were moderate to fresh, northeasterly.

Rainfall: Nii at numerous locations to 15.5 mm at Newtowmmountkennedy Forest Lab. Temperature: Lowest max. 10.5°C at Fethard (Parsonshill), highest max. 18.1°C at Ardtarmon. Lowest min. 3.1°C at Ballymore, highest min. 9.8°C at Valentia Obs Sunshine: Nii at Dublin (Glasnevin) to 8.2 hours at Valentia Obs

Friday 15th: Outbreaks of rain and drizzle arrived in the West by morning and spread eastwards. This cleared by evening to give a mainly dry night again. Overall a mild and humid day. Winds were moderate to fresh, south to southwest.

Rainfall: Nil at numerous locations to 12.3 mm at Pettigo (Lough Derg)
Temperature: Lowest max. 12.2°C at Sherkin Island, Cloosh, highest max. 17.5°C at Adare
Manor. Lowest min. 0.5°C at Dublin Apt, highest min. 10.8°C at Shannon Apt
Sunshine: Nil at numerous locations to 1.9 hours at Ashford (Cronykeery)

Saturday 16th: Many areas had passing light showers but parts of the south escaped completely. There were good periods of sunshine between the showers. Winds were fresh to strong, southwesterly.

Rainfall: Nil at numerous locations to 7.9 mm at Derrypark

Temperature: Lowest max. 11.2°C at Knock Apt, highest max. 18.0°C at Cahore (Kilmichael Hse). Lowest min. 3.9°C at Dundalk (Annaskeagh WW), highest min. 9.4°C at Sherkin Island Sunshine: 5.4 hours at Ardfert (Liscahane) to 12.3 hours at Dungarvan (Carriglea)

Sunday 17th: Mostly cloudy and breezy. A showery trough moved across the country. There were periods of sunshine between the showers. Winds were moderate to fresh, southwesterly.

Rainfall: 1.0 mm at Ballyvourney (Clountycarty) to 26.4 mm at Falcarragh (Lough Altan)
Temperature: Lowest max. 10.9°C at Knock Apt, highest max. 15.4°C at Newport (Furnace).
Lowest min. 3.6°C at Clonroche (Knoxtown), highest min. 9.9°C at Dooks
Sunshine: Nil at Ballyshannon (Cathleen's Fall) to 5.5 hours at Straide

Monday 18th: Rain cleared to give a cool, bright day with sunny spells and showers. These showers were heavy in places, especially in the West and North, some with thunder. Winds were fresh to strong, southwesterly. Rainfall: 0.4 mm at Malahide Castle to 31.5 mm at Macroom (Curraleigh)

Temperature: Lowest max. 9.0°C at Knock Apt, highest max. 15.0°C at Cahore (Kilmichael Hse). Lowest min. 3.7°C at Knock Apt, highest min. 8.2°C at Sherkin Island, Dublin

Sunshine: 5.4 hours at Newport (Furnace), Ardfert (Liscahane) to 10.8 hours at Dungarvan (Carriglea)

Tuesday 19th: It was a cool and windy day with a band of showers crossing the country from the West overnight and becoming widespread in all areas during the morning. There was the odd thunderstorm in the East. The showers gradually died out in most areas late in the night. Winds were moderate to fresh, northwesterly.

Rainfall: Nil at numerous locations to 12.9 mm at Swanlinbar

(Glasnevin)

Temperature: Lowest max. 10.8°C at Knock Apt, Mt Russell, highest max. 15.5°C at Dungarvan (Carriglea). Lowest min. 4.0°C at Slieve Bloom Mtns (Nealstown), Horseleap, highest min. 8.5°C at Ballycroy (Knockmoyleen)

Sunshine: 6.0 hours at Valentia Obs to 11.8 hours at Shannon Apt

Wednesday 20th: Mainly dry through the morning, with some patchy rain and drizzle in West, with good bright periods further east. The afternoon was dry and bright with just the odd light shower. The evening and night continued dry with sunny/clear periods. Winds were moderate, northwesterly.

Rainfall: Nil at numerous locations to 4.6 mm at Kenmare
Temperature: Lowest max. 12.0°C at Malin Head, highest max. 17.4°C at Waterford (Tycor).
Lowest min. 2.0°C at Castleconnell, highest min. 8.5°C at Sligo Airport
Sunshine: 1.1 hours at Straide to 11.0 hours at Dungarvan (Carriglea)

Thursday 21st: It was a mixed day, with a lot of cloud but some good spells of sunshine, mainly in the South and East. It was wetter in the West and North with showers mainly near coasts. Winds were light to moderate, southwest to northwest.

Rainfall: Nil at numerous locations to 9.7 mm at Newport

Temperature: Lowest max. 11.9°C at Newport, highest max. 20.0°C at Cahore (Kilmichael Hse). Lowest min. 2.3°C at Carrickmacross (Dunoge), highest min. 11.0°C at Sligo Airport Sunshine: Nil at Newport (Furnace) to 8.5 hours at Arklow (Ballyrichard Hse)

Friday 22nd: Drizzle through the morning in places, but a lot of places remained dry. The day was mostly dry, just the odd shower with some good sunny/clear periods. Winds were light to moderate, southwest to northwest. *Rainfall: Nil at numerous locations to 8.0 mm at Bruckless*

Temperature: Lowest max. 12.3°C at Malin Head, Ballycroy-Knockmoyleen, highest max. 20.6°C at JFK Park. Lowest min. 7.6°C at Ardee (Boharnamoe), highest min. 12.3°C at Dungarvan (Carriglea)

Sunshine: 0.2 hours at Ardfert (Liscahane) to 6.6 hours at Dungarvan (Carriglea)

Saturday 23rd: A warm and humid day with good spells of sunshine in the East but cloud building in the West. Light rain and drizzle arrived in the Northwest by afternoon spreading inland throughout the evening. Winds were light to moderate, southwesterly.

Rainfall: Nil at numerous locations to 17.4 mm at Kilcar (Cronasillagh)
Temperature: Lowest max. 13.4°C at Mace Head, Newport, highest max. 21.2°C at
Castleconnell. Lowest min. 2.4°C at Mullingar, highest min. 10.6°C at Waterford (Tycor)
Sunshine: Nil at numerous locations to 9.3 hours at Clonroche (Knoxtown)

Sunday 24th: A dry day with good sunshine in the Southeast. Late in the day another band of light rain and drizzle crossed from the West bringing small rainfall totals. Winds were moderate, northwesterly.

Rainfall: Nil at numerous locations to 5.5 mm at Mulrany (Doughbeg)

Temperature: Lowest max. 11.1°C at Malin Head, highest max. 18.1°C at Glengarriff (Ilnacullin). Lowest min. 5.5°C at Dundalk (Annaskeagh WW), highest min. 13.0°C at Cahore (Kilmichael Hse)

Sunshine: 0.5 hours at Ardfert (Liscahane) to 10.2 hours at Arklow (Ballyrichard Hse)

Monday 25th: Showers became near widespread, but remained dry in the South. Rain cleared most areas during the afternoon and some good sunshine developed. Dry over most areas for evening and night with good sunny/clear periods. Winds were moderate, variable in direction.

Rainfall: Nil at numerous locations to 3.0 mm at Lough Glencar

Temperature: Lowest max. 11.7°C at Malin Head, highest max. 20.9°C at Glengarriff (Ilnacullin). Lowest min. 5.4°C at Dundalk (Annaskeagh WW), highest min. 10.6°C at Dooks Sunshine: Nil at Ballyshannon (Cathleen's Fall) to 10.8 hours at Sherkin Island

Tuesday 26th: Any patches of light rain died out, leaving dry weather with sunny spells in the South and East. Winds were light to moderate, northwesterly.

Rainfall: Nil at numerous locations to 6.6 mm at Swanlinbar

Temperature: Lowest max. 11.3°C at Belderrig, highest max. 21.1°C at Glengarriff (Ilnacullin). Lowest min. 5.9°C at Mallow (Spa Hse), highest min. 11.2°C at Ashford (Cronykeery) Sunshine: 0.1 hours at Belmullet to 10.7 hours at Shannon Apt

Wednesday 27th: There were outbreaks of rain and drizzle but it stayed mostly dry for the afternoon and evening. Cloudy generally apart from the extreme Southwest where there were good spells of sunshine. Winds were moderate to fresh, southwesterly.

Rainfall: Nil at numerous locations to 31.1 mm at Gort (Derrybrien)

Temperature: Lowest max. 11.0°C at Malin Head, highest max. 16.7°C at Waterford (Tycor). Lowest min. 2.0°C at Killarney (Muckross Hse), highest min. 9.4°C at Newport (Furnace), Dublin (Glasnevin)

Sunshine: 0.3 hours at Knock Apt to 2.7 hours at Dublin Apt

Thursday 28th: Widespread showers through the morning, with some good sunny periods. Showers continued through the day. Winds were fresh to strong, southwesterly.

Rainfall: 0.1 mm at Carrigaline (Kilnagleary) to 16.5 mm at Listowel (Gurtocloghane)
Temperature: Lowest max. 11.0°C at Lullymore Nature Centre, highest max. 15.9°C at JFK
Park. Lowest min. 4.0°C at Knock Apt, highest min. 9.5°C at Sherkin Island
Sunshine: 4.3 hours at Knock Apt to 11.0 hours at Dublin (Glasnevin)

Friday 29th: There were some good spells of sunshine between showers. The showers continued through the morning and afternoon becoming more isolated during the late evening. It became almost completely dry by midnight. Winds were moderate to fresh, northwesterly.

Rainfall: Nil at numerous locations to 8.0 mm at Mulrany (Doughbeg)
Temperature: Lowest max. 10.9°C at Knock Apt, highest max. 16.0°C at Glengarriff
(Ilnacullin). Lowest min. 4.8°C at Glenties Hatchery, highest min. 9.8°C at Sherkin Island
Sunshine: 6.9 hours at Knock Apt to 13.2 hours at Dungarvan (Carriglea)

Saturday 30th: Cloud increased towards afternoon and evening as rain spread in from the West. The rain became heavier, and more persistent towards evening, and thundery in places. Rain began to clear from the West in the late evening. A cool day overall. Winds were light to moderate, variable in direction.

Rainfall: Nil at Roscrea (New Road) to 27.3 mm at Cuilcagh Mtns.
Temperature: Lowest max. 11.5°C at Knock Apt, Ballymore, highest max. 16.5°C at Mullagh
(Carrowlagan). Lowest min. 1.5°C at Horseleap, highest min. 7.6°C at Mace Head
Sunshine: Nil at numerous locations to 4.4 hours at Dublin Apt

Sunday 31st: Showery conditions in the morning, turned widespread, heavier and thundery towards early afternoon with some hail. These cleared to more isolated showers by evening. Some good sunny spells in between showers. There was another cool day overall. Winds were fresh to strong, west to southwest.

Rainfall: Nil at numerous locations to 24.2 mm at Keenagh Beg

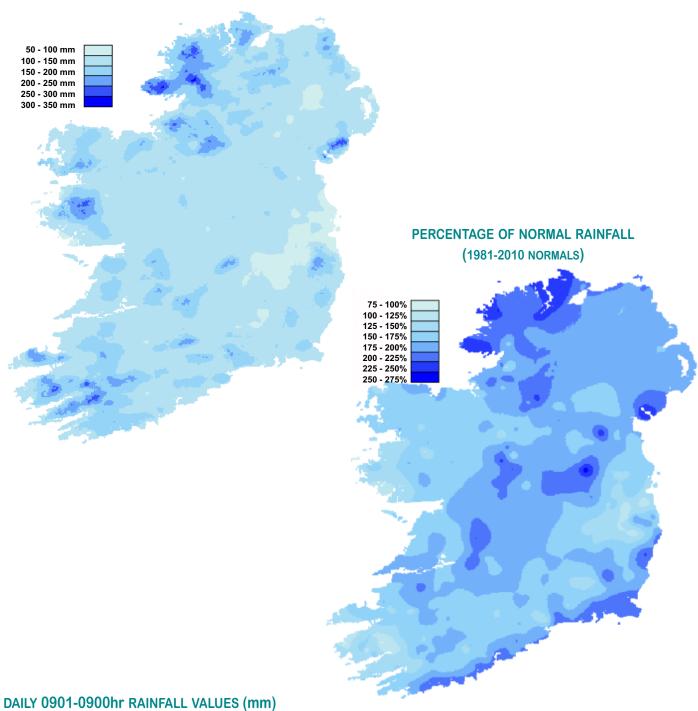
Temperature: Lowest max. 10.3°C at Knock Apt, Ballinamore, highest max. 15.5°C at Mullagh (Carrowlagan). Lowest min. 4.6°C at Craggaunowen, highest min. 8.9°C at Sherkin Island Sunshine: 7.2 hours at Ashford (Cronykeery) to 11.6 hours at Sherkin Island

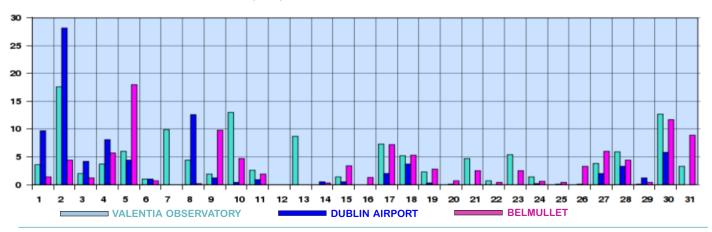
DOUBLE OR MORE LTA RAINFALL REPORTED IN PARTS

Percentage of Long-Term Average (LTA) rainfall values were near or above average everywhere. Nearly a quarter of stations across the country reporting LTA values of double or more their normal rainfall for May. The month's highest percentage of LTA rainfall was 267% at Ballivor (Hill of Down), Co Westmeath with a monthly total of 162.1 mm, its wettest May since 2006. Around a fifth of stations reported their wettest May on record, with the longest series of observational records exceeded at Malin Head, Co Donegal with 138.1 mm (236% of LTA), its wettest May since records began in 1885 (130 years). The wettest days were mainly between the 2nd and the 5th, with the month's wettest day reported at Omeath, Co Louth on the 2nd with 80.6 mm, its wettest day for any month on available record since the station opened in 1943. This high daily rainfall was nearly half of its monthly total of 178.3 mm (232% of LTA) resulting in its wettest May since 1981. A few isolated stations in Louth, Monaghan, Wicklow and Dublin reported that their high monthly totals (around double their LTA) were attributed to heavy rainfall on the 2nd. This heavy rainfall was caused by bands of rain leading to a third or more of monthly totals being recorded. The month's highest monthly rainfall total (in both a low-lying and mountainous region) was at Cloone Lake (Caragh River Area), Co Kerry with 259.6mm (152% of LTA), its wettest May in nine years while the month's lowest percentage of LTA value and lowest monthly total was at Inishere, Co Galway with 92% and 65.4 mm of rain, respectively.

| CO CAVAN | 4 9 1 9 |
|--|------------------|
| CO CAVAN BALLYHAISE 121.6 179 24.0 2 25 1 | 9 |
| BALLYHAISE 121.6 179 24.0 2 25 1 | 1 |
| | 1 |
| CO CLARE | |
| | |
| CARRON 161.0 169 22.4 2 24 2 | 9 |
| SHANNON AIRPORT 111.5 172 15.2 8 23 1 | - 1 |
| CO CORK | |
| BALLINCURRIG (PEAFIELD) 156.9 173 39.8 2 21 1 | 6 |
| | 6 |
| | 5 |
| | 6 |
| | . |
| | 6 |
| CO DONEGAL | _ |
| | 6 |
| | 3 |
| | 8 |
| CO DUBLIN | |
| CASEMENT AERODROME 96.4 163 17.2 2 22 1 | 7 |
| DUBLIN (MERRION SQUARE) 84.0 144 25.7 2 20 1 | 5 |
| DUBLIN AIRPORT 90.5 152 28.2 2 20 1 | 4 |
| DUBLIN (PHOENIX PARK) 103.0 168 24.9 2 23 1 | 5 |
| CO GALWAY | |
| MAAM VALLEY 227.4 151 23.4 17 26 2 | 5 |
| CO KERRY | |
| | 9 |
| | 3 |
| CO KILKENNY | ٥ |
| | , |
| | 4 |
| CO LIMERICK | |
| | 7 |
| CO MAYO | |
| BELMULLET 110.1 156 18.0 5 28 2 | 0 |
| DELPHI LODGE 218.9 31.5 9 30 2 | 2 |
| KNOCK AIRPORT 152.5 166 23.6 2 27 2 | 2 |
| STRAIDE 131.3 167 26.4 10 24 1 | 9 |
| CO MEATH | |
| WARRENSTOWN 96.1 149 20.5 2 23 1 | 4 |
| CO MONAGHAN | |
| CARRICKMACROSS (DUNOGE) 119.7 182 52.4 2 22 1 | 5 |
| CO OFFALY | |
| | 8 |
| CO ROSCOMMON | ۱ |
| | 0 |
| | 8 |
| CO SLIGO | _ |
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| CO TIPPERARY | |
| | 5 |
| GURTEEN (AG.COLLEGE) 128.9 190 20.2* 4 24* 2 | 0* |
| CO WATERFORD | |
| DUNGARVAN (CARRIGLEA) 149.2 184 33.1 2 18 1 | 5 |
| WATERFORD (TYCOR) 129.9 190 24.2 2 19 1 | 5 |
| CO WESTMEATH | |
| MULLINGAR 135.7 196 28.7 2 21 1 | 8 |
| CO WEXFORD | |
| | 4 |
| | 4 |
| CO WICKLOW | 7 |
| | , |
| ASHFORD (CRONYKEERY) 113.1 166 31.6 2 20 11 ** ESTIMATED DATA USED IN CALCULATION. TABLE REPRESENTS DATA FROM A SMALL SELECTION OF RAINFALL STATIONS. ALL DATA IS 09 | 4 09 HB |



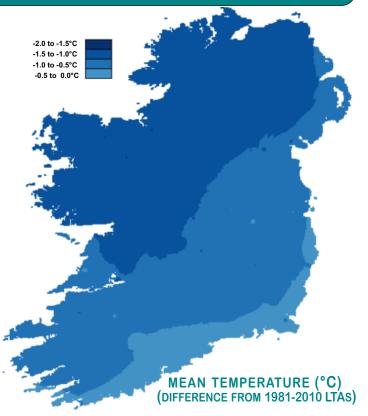




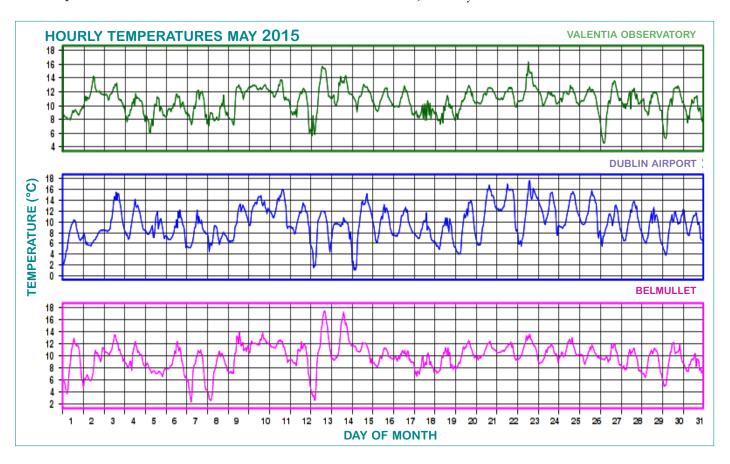
BELOW LONG-TERM AVERAGE MEAN TEMPERATURES EVERYWHERE

Monthly mean air temperatures were on or below Long-Term Average (LTA) everywhere, with mean temperatures over -1°C from their LTA in the West and North. Mean temperatures were nearest their LTAs in southern coastal counties with Waterford (Tycor) reporting the only on average LTA with the month's highest mean temperature with 11.7°C. The largest difference from LTA was -1.6°C reported at three stations in Mayo; Knock Airport (the month's lowest mean temperature of 8.6°C, it coolest May at the station since it opened in 1996), Newport (mean temperature of 10.2°C, its coolest May since 1996) and Ballina Golf Club (mean temperature of 9.4°C, its coolest May since the station opened in 2002). This large deviation from LTA was also reported at Markree, Co Sligo with mean temperature of 9.5°C, its lowest for May since 2008. The majority of stations in the North and Northwest reported it as their coolest May since 1996.

Most highest maxima were recorded between the 21st and the 26th with Malin Head, Co Donegal reporting the month's lowest maximum temperature of 15.1°C, equalling its lowest maximum for May since 1967. The month's highest maximum and lowest minimum were both reported at Castleconnell, Co Limerick with the



highest maximum temperature reported on the 23rd with 21.2°C and the month's lowest minimum temperature reported on the 1st with -1.6°C. The majority of lowest air and grass minimum temperatures were on the 1st, 13th, 27th and 30th with the month's lowest grass minimum reported at Straide, Co Mayo on the 8th with -5.5°C.



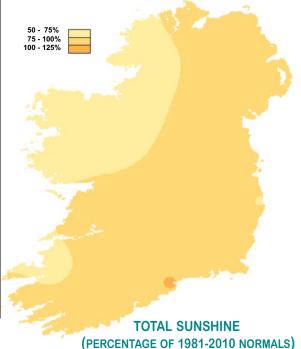
| | MEAN | MEAN | | FERENCE FROM 81-2010 | HIGHES | īΤ | LOWES | īΤ | LOWE | ST | DAYS WI | TH FROST |
|--------------------------------|------|-------|------|----------------------------|---------|------------|---------|--------|-----------|-------|---------|----------|
| COUNTY/ STATION | MAX. | MIN. | | AVERAGE | MAX./D | | MIN./D/ | • | GRASS MII | | | GROUND |
| CO CARLOW | | | | | | | | | | | | |
| CARLOW (OAK PARK) | 14.3 | 6.5 | 10.4 | -1.1 | 19.2 | 22 | 1.6 | 1 | -4.5 | 1 | 0 | 6 |
| CO CAVAN | | | | | | | | | | | | |
| BALLYHAISE | 13.0 | 5.9 | 9.4 | -1.5 | 16.4 | 22 | 0.4 | 1,13 | -3.1 | 1 | 0 | 3 |
| CO CLARE | | | | | | | | | | | | |
| CARRON | 12.9 | 6.4 | 9.7 | -1.1 | 15.7 | 26 | 2.8 | 1 | 1.3 | 1 | 0 | 0 |
| SHANNON AIRPORT | 14.1 | 7.8 | 10.9 | -1.2 | 18.3 | 23 | 3.9 | 13 | 0.0 | 13 | 0 | 0 |
| CO CORK | | | | | | | | | | | | |
| BALLINCURRIG (PEAFIELD) | 14.6 | 6.6 | 10.6 | -0.1 | 19.0 | 26 | 3.0 | 30 | 2.8 | 30 | 0 | 0 |
| CORK AIRPORT | 13.8 | 7.0 | 10.4 | -0.5 | 18.5 | 22 | 3.1 | 4 | -0.8 | 4,21 | 0 | 4 |
| FERMOY (MOORE PARK) | 14.4 | 7.0 | 10.7 | -0.4 | 18.6 | 26 | 2.8 | 20 | 0.3 | 27 | 0 | 0 |
| ROCHE'S POINT | 13.9 | 8.5G | 11.2 | -0.3 | 18.6 | 26 | 5.7 | 30 | 0.8 | 13 | 0 | 0 |
| | 13.2 | 8.9 | 11.0 | -0.7 | 17.6 | 26 | 5.5 | 13 | 0.8 | 27 | 0 | 0 |
| SHERKIN ISLAND | 13.2 | 0.9 | 11.0 | -0.7 | 17.0 | 20 |] ,,, | 13 | 0.0 | 21 | 0 | U |
| CO DONEGAL | 10.0 | 7 0 | 0 0 | 1 0 | 1.0.0 | 0.0 | | 1 | | | _ | |
| BALLYSHANNON (CATHLEEN'S FALL) | 12.8 | 7.0 | 9.9 | -1.2 | 16.6 | 23 | 0.9 | 1 | | 0 | 0 | _ |
| GLENTIES HATCHERY | 13.1 | 5.9 | 9.5 | -1.2 | 18.0 | 14 | 0.1 | 1 | -2.6 | 2 | 0 | 5 |
| MALIN HEAD | 11.9 | 7.1 | 9.5 | -1.0 | 15.1 | 10 | 2.2 | 8 | -3.0 | 8 | 0 | 1 |
| CO DUBLIN | | | | | | | | | | | | |
| CASEMENT AERODROME | 14.0 | 6.0 | 10.0 | -0.9 | 18.5 | 23 | 0.6 | 1 | -1.9 | 1 | 0 | 3 |
| DUBLIN (MERRION SQUARE) | 14.3 | 7.5 | 10.9 | -1.2 | 17.8 | 21 | 4.7 | 20 | | | 0 | |
| DUBLIN AIRPORT | 13.9 | 5.9 | 9.9 | -1.0 | 18.4 | 23 | 0.5 | 15 | -3.3 | 1 | 0 | 4 |
| DUBLIN (PHOENIX PARK) | 14.8 | 6.6 | 10.7 | -0.3 | 20.2 | 23 | 2.7 | 15 | -0.6 | 1 | 0 | 4 |
| CO GALWAY | | | | | | | | | | | | |
| MAAM VALLEY | 13.6 | 6.8 | 10.2 | -1.2 | 16.6 | 13 | 1.6 | 13 | -1.2 | 13 | 0 | 1 |
| CO KERRY | | | | | | | | | | | | |
| ARDFERT (LISCAHANE) | 14.3 | 7.3 | 10.8 | -0.7 | 19.2 | 13 | 4.2 | 13 | 2.9 | 13 | 0 | 0 |
| VALENTIA OBSERVATORY | 13.1 | 8.3 | 10.7 | -0.9 | 16.5 | 23 | 4.5 | 27 | 0.3 | 27 | 0 | 0 |
| CO KILKENNY | 10.1 | "" | 10.7 | 0.5 | 10.0 | 20 | 1.0 | 2.7 | 0.5 | 2.7 | Ŭ | Ü |
| | 14.8 | 6.3 | 10.6 | -0.7 | 19.4 | 2.2 | 0.6 | 1 | -4.1 | 1 | 0 | 8 |
| THOMASTOWN (MT. JULIET) | 14.0 | 0.5 | 10.0 | -0.7 | 13.4 | 22 | 0.0 | Τ | -4.1 | 1 | 0 | O |
| CO LIMERICK | 10.0 | | 0.0 | 0 0 | 16.7 | 0.0 | | 10 | 1 0 | 10 | | 0 |
| MOUNTRUSSELL | 13.3 | 6.5 | 9.9 | -0.9 | 16.7 | 23 | 4.4 | 13 | 1.2 | 13 | 0 | 0 |
| CO MAYO | | | | | | | | _ | | _ | _ | _ |
| BELMULLET | 12.7 | 7.2 | 10.0 | -1.2 | 18.0 | 13 | 2.2 | 7 | -1.0 | 8 | 0 | 3 |
| DELPHI LODGE | 12.9 | 7.1 | 10.0 | -1.5 | 16.8 | 13 | 1.6 | 8,13 | -4.5 | 13 | 0 | 5 |
| KNOCK AIRPORT | 12.0 | 5.2 | 8.6 | -1.6 | 15.2 | | 2.2 | 1 | -0.9 | | 0 | 1 |
| STRAIDE | 13.7 | 6.1 | 9.9 | -1.0 | 17.5 | 22 | -0.8 | 8 | -5.5 | 8 | 2 | 6 |
| CO MEATH | | | | | | | | | | | | |
| WARRENSTOWN | 14.6 | 6.3 | 10.4 | -0.6 | 19.4 | 23 | 0.9 | 15 | -1.4 | 13 | 0 | 2 |
| CO MONAGHAN | | | | | | | | | | | | |
| CARRICKMACROSS (DUNOGE) | 13.9 | 5.8 | 9.8 | -1.1 | 18.2 | 22 | 0.1 | 13 | -3.3 | 1 | 0 | 5 |
| CO OFFALY | | | | | | | | | | | | |
| DERRYGREENAGH | 14.3 | 6.3 | 10.3 | -0.4 | 17.7 | 23 | 2.4 | 1 | -2.4 | 1 | 0 | 3 |
| CO ROSCOMMON | | | | | | | | | | | | |
| MOUNTDILLON | 13.8 | 5.7 | 9.7 | -1.3 | 17.9 | 22 | -0.1 | 1 | -1.8 | 13 | 1 | 3 |
| CO SLIGO | 10.0 | ", | J., | 1.5 | 1,13 | | "" | - | 1.0 | 10 | - | J |
| | 14.0 | 6.7 | 10.3 | -1.1 | 18.1 | 1 / | 2.9 | 1 | -1.8 | Q | 0 | 4 |
| ARDTARMON | 14.0 | 0.7 | 10.3 | -1.1 | 10.1 | 14 | 2.3 | Τ | -1.0 | 0 | 0 | 4 |
| CO TIPPERARY | 10 7 | C 1 | 0 0 | 0 0 | 10 5 | 0.0 | 2 - | 20 | | 20 | _ | 0 |
| FETHARD (PARSONSHILL) | 13.7 | 6.1 | 9.9 | -0.9 | 18.5 | | 3.5 | | 0.0 | | 0 | 0 |
| GURTEEN (AG.COLLEGE) | 13.7 | 6.3 | 10.0 | -1.1 | 16.9 | 22 | 1.6 | 1 | -2.4* | 13 | 0 | |
| CO WATERFORD | | _ | | _ | | | | | | _ | | |
| DUNGARVAN (CARRIGLEA) | 15.5 | 7.2 | 11.4 | -0.1 | 20.1 | | 2.5 | | 0.0 | 4 | 0 | 0 |
| WATERFORD (TYCOR) | 15.4 | 8.0 | 11.7 | 0.0 | 19.9 | 22 | 5.1 | 30 | | | 0 | |
| CO WESTMEATH | | | | | | | | | | | | |
| MULLINGAR | 13.7 | 5.8 | 9.7 | -1.0 | 17.0 | 22 | 0.2 | 13 | -2.8 | 13 | 0 | 6 |
| CO WEXFORD | | | | | | | | | | | | |
| CLONROCHE (KNOXTOWN) | 14.0 | 6.5 | 10.2 | -0.4 | 19.1 | 22 | 2.0 | 15 | -0.5 | 13,30 | 0 | 4 |
| JOHNSTOWN CASTLE | 13.7 | 7.4 | 10.5 | -0.6 | 18.9 | 22 | 4.6 | 20,30 | | | 0 | 3 |
| CO WICKLOW | | , - | | • | | | | ., - 0 | | - | | - |
| ASHFORD (CRONYKEERY) | 14.8 | 7.1 | 11.0 | -0.1 | 19.6 | 21 | 2.9 | 1,27 | -3.9 | 1 | 0 | 6 |
| DOULOND (CHONINEEVI) | 11.0 | ' • • | 11.0 | ∨•± | ± J • U | <u>- 1</u> | 2.9 | +141 | 3.9 | ±. | | U |

| COUNTY/ STATION | DAILY MEAN (HOURS/DAY | | DULL DAYS (<0.5 HRS) | | T IN A DATE |
|--|--------------------------|-----------|----------------------------|------|-------------------|
| CO CLARE | | | | | |
| SHANNON AIRPORT | 5.24 | 90 | 5 | 12.8 | 29 |
| CO CORK | | | | | |
| BALLINCURRIG (PEAFIELD) | 5.00 | 81 | 5 | 11.9 | 12 |
| CORK AIRPORT | 5.04 | 81 | 5 | 12.7 | 12 |
| SHERKIN ISLAND | 5.81 | 87 | 6 | 13.5 | 12 |
| CO DONEGAL | | | | | |
| BALLYSHANNON (CATHLEEN'S FALL) | 4.09 | 70 | 9 | 11.8 | 13 |
| CO DUBLIN | | | | | |
| CASEMENT AERODROME | 4.95 | 82 | 3 | 11.1 | 13 |
| DUBLIN (GLASNEVIN) | 5.40 | 91 | 3 | 11.6 | 11 |
| DUBLIN AIRPORT | 5.35 | 85 | 2 | 12.8 | 13 |
| CO KERRY | | | | | |
| ARDFERT (LISCAHANE) | 3.80 | 64 | 6 | 12.3 | 13 |
| VALENTIA OBSERVATORY* | 4.73 | | 7 | 12.9 | 13 |
| CO MAYO | | | | | |
| BELMULLET* | 4.30 | | 5 | 10.4 | 13 |
| KNOCK AIRPORT | 3.31 | 59 | 9 | 12.2 | 13 |
| NEWPORT (FURNACE) | 3.92 | 72 | 8 | 11.3 | 13 |
| STRAIDE | 4.28 | 73 | 6 | 11.1 | 13 |
| CO WATERFORD | | | | | |
| DUNGARVAN (CARRIGLEA) | 6.18 | 101 | 5 | 13.4 | 12 |
| CO WEXFORD | | | | | |
| CLONROCHE (KNOXTOWN) | 4.92 | 82 | 7 | 12.1 | 12 |
| JFK PARK | | -not avai | lable | | |
| WEXFORD WILDFOWL RESERVE | | -not avai | lable | | |
| CO WICKLOW | | | | | |
| ARKLOW (BALLYRICHARD HSE.) | 5.27 | | 4 | 11.6 | 16 |
| ASHFORD (CRONYKEERY) | 4.66 | 74 | 4 | 9.9 | 12,19 |
| * PARTIAL DATA USED IN CALCULATION * SUNSHINE DURATION DERIVED FROM AUTOSOL INSTRUMENTS. LONG-TERM AVERAGE COMPARISONS ARE NOT USED WITH AUTOSOL READINGS. | | | | | |

SUNNIEST IN THE SOUTHEAST; BELOW LTA SUNSHINE NEARLY EVERYWHERE

Sunshine totals were mainly below Long-Term Average (LTA). Percentage of LTA values and monthly totals were lowest at Knock Airport, Co Mayo with 59% and 102.7 hours, respectively. The month's highest percentage of LTA value and monthly total was at Dungarvan (Carriglea), Co Waterford with 101% and 191.6 hours, its sunniest May in five years. Ardfert (Lischane), Co Kerry had its dullest May since the station opened in 1981 with a monthly total of 117.7 hours. The month's sunniest day was reported at Sherkin Island on the 12th with 13.5 hours, while the highest number of dull days (days with less than 0.5 hours of sunshine) of nine was reported at both Ballyshannon (Cathleen's Fall), Co Donegal and Knock Airport.

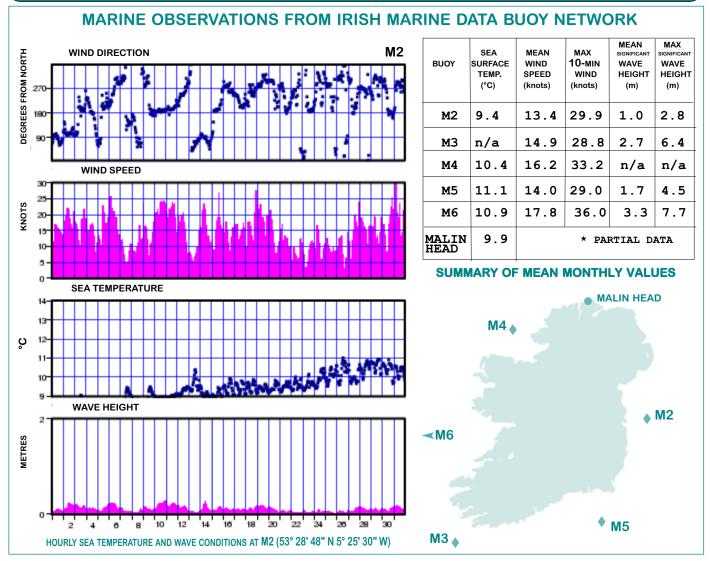
Global solar radiation LTA values were all below their LTA and ranged from 76% at Valentia Observatory, Co Kerry to 82% at Dublin Airport.

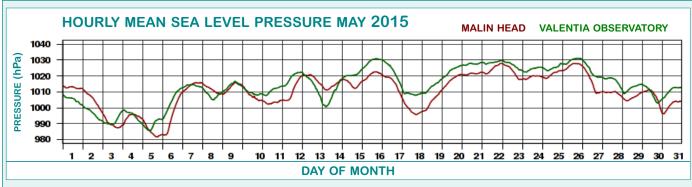


DAILY SUNSHINE VALUES (HOURS)

14 12 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

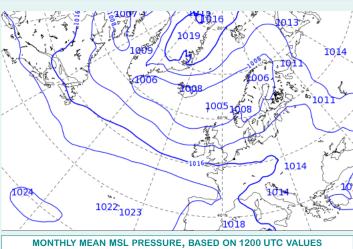
VALENTIA OBSERVATORY DUBLIN AIRPORT BELMULLET





ATMOSPHERIC PRESSURE

Monthly mean sea level pressure values ranged from just below 1010 hPa in the North to just below 1014 hPa in the South. The month's lowest pressure value of 981.6 hPa was recorded at Malin Head on the 5th between 1700 and 1800 UTC as a depression of 980 hPa was located over the north coast and southwest Scotland. The month's highest pressure value was 1031.2 hPa recorded at Valentia Observatory, Co Kerry on the 26th between 1700 UTC and 1900 UTC as a high pressure system spanned across the Atlantic and the Azores to near the southwest coast.



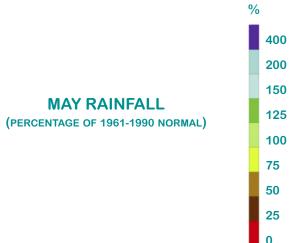
°C

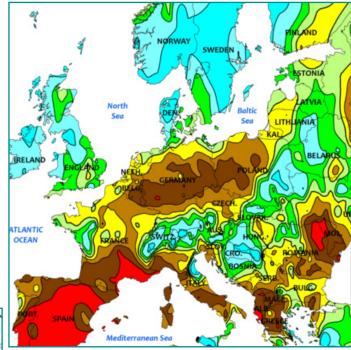
+5

+3 +1 -1

-3

-5







MAY MEAN TEMPERATURE

(DIFFERENCE FROM 1961-1990 NORMAL)

MAPS SUPPLIED BY NOAA
CLIMATE PREDICTION CENTRE,
US DEPARTMENT OF COMMERCE.
GLOBAL WEATHER INFORMATION SUPPLIED
BY AON BENFIELD

Tropical Storm Ana became the first storm of the Atlantic hurricane season recording 1-minute sustained winds of 51 knots (95 km/b). The storm weakened as it approached land, never attaining hurricane strength before making landfall in South Carolina on May 10th. Ana brought torrential rain and large waves that caused flooding in the area and significant coastal erosion.

Parts of Germany and Belgium were damaged by very high winds, large hail showers, lightning strikes, and at least two tornado touchdowns on the 5th and 6th. The town of Bützow sustained a direct hit from a tornado with an estimated intensity of F3 (estimated wind speeds of 254 to 332 km/h)

Super Typhoon Noul, the sixth storm of the 2015
Pacific Typhoon season, occurred between the 10th and 12th
bringing heavy rain and strong winds to the Philippines, Yap, and
Japan's Okinawa. Highest estimated 10-minute sustained winds
according to the Japanese Meteorological Agency were at 110 knots
(205 km/b). At least two people were killed in the Philippines as a
result of the severe weather. It caused major disruption to
transport systems and power supplies were also affected.

GLOBAL WEATHER SUMMARY Severe Flooding and landslides resulted in 83 fatalities in Colombia around the 17th as heavy rainfall caused the Liboriana River to burst its banks, triggering a massive landslide. This caused major damage to the small town of La Margarita where there were 37 reported casualties and numerous homes were destroyed.

Guam and Rota in the Northern Mariana archipelago experienced a Category 2 strength typhoon on May 14th, which was named Dolphin, the seventh named storm of the Pacific Typhoon season. The Japanese Meteorological Agency estimated 10-minute sustained winds were at 99 knots (185 km/h). This storm caused major disruption to power lines, public transport and travel services.