



Annual 2020 Ireland

Above average rainfall, temperatures and sunshine

January was mild and relatively dry with low pressure to the north and high pressure to the south. Storm Brendan affected Ireland on the 13th. February was an exceptionally wet and windy month with a strong North Atlantic Jetstream steering numerous storm systems close to, or over Ireland. Storm Ciara affected Ireland on the 9th and 10th, Storm Dennis on the 15th and 16th and Storm Jorge on the 29th and 1st of March. Low pressure to the north kept Ireland in a cool westerly airflow for the first half of March. Pressure rose steadily from mid-month leading to a mostly dry and cool second half of the month. April and May were very dry, sunny and warm months with drought conditions in many places. Blocking high pressure steered a weakened Jetstream away from Ireland. The pattern change at the beginning of June led to an unseasonably strong Jetstream dominating the weather for the months of June and July. This brought above average rainfall for both months, and near to, or below average temperatures. August was warm and wet. An active Jetstream in the final third of the month brought two named storms, Storm Ellen on 19th and 20th and Storm Francis on 24th and 25th. The first two thirds of September were warm with high pressure to the south in control. The final third of the month was cool with low pressure dominating. October continued cool. Low pressure dominated the first week, high-pressure the second. The final third of the month was very stormy with Storm Aiden affecting Ireland on the 31st. November was mild overall. Low pressure to the north and high pressure to the south brought a west or south-westerly airflow, with the western half of the country receiving the bulk of the rain. December was cool and wet with Ireland stuck under a deep Atlantic trough in between two blocking high-pressure systems. On Christmas Day, a transient area of high pressure kept it mostly dry before Storm Bella affected Ireland on the 26th and 27th.

Rainfall: Above average at most stations

The majority of annual rainfall totals were above their Long-Term Average (LTA). Percentage of annual rainfall values ranged from 99% at both Dublin Airport, Co Dublin (the years lowest annual rainfall total of 748.9 mm) and Phoenix Park, Co Dublin (annual rainfall total of 764.4 mm) to 136% (annual rainfall total of 1638.0 mm) at Claremorris, Co Mayo (*its wettest year on record (record length 15 years)*). Annual rainfall totals were as much as 2051.7 mm (percentage of LTA 128%) at Newport, Co Mayo. The highest daily rainfall total was 54.5 mm at Valentia Observatory, Co Kerry on Wednesday 29th July. The number of rain days ranged from 201 days at Dublin Airport to 271 days at Newport, Co Mayo. The number of wet days¹ ranged from 146 days at Dublin Airport to 235 days at Newport, Co Mayo. The number of very wet days³ ranged from 17 days at Phoenix Park, Co Dublin to 68 days at Newport, Co Mayo. It was the wettest year since 2009 at both Valentia Observatory, Co Kerry and Sherkin Island, Co Cork. It was the wettest year of the last five years at 18 other stations.

Temperature: Above average at most stations

Nearly all mean air temperatures were above their Long-Term Average (LTA). Deviations from mean air temperature for the year ranged from -0.1 °C (9.5 °C, 9.6 °C mean temperature) at Markree, Co Sligo and Dublin Airport respectively to 0.7 °C (10.3 °C mean temperature) at Phoenix Park, Co Dublin. Mean temperatures for the year ranged from 8.9 °C (0.4 °C above its LTA) at Knock Airport, Co Mayo to 11.1 °C (at its LTA) at Sherkin Island, Co Cork. The year's lowest temperatures were recorded on Sunday 19th January. The lowest air minimum was reported at Mullingar, Co Westmeath with a temperature of -6.1 °C and the lowest grass minimum was reported at Oak Park, Co Carlow with -10.7 °C. The highest maximum was reported on Monday 1st June at Newport, Co Mayo with a temperature of 27.1 °C. All stations reported ground frost during the year. The number of days with ground frost ranged from 28 days at both Mace Head, Co Galway and Sherkin Island, Co Cork to 143 days at Markree, Co Sligo. More than half of stations reported air frost. The number of days with air frost ranged from zero days at a few stations to 52 days at Mount Dillon, Co Roscommon.

Sunshine: Sunniest in the South and East

All available sunshine totals were above their Long-Term Average (LTA). Percentage of annual sunshine values ranged from 105% (annual sunshine total of 1523.1 hours) at Dublin Airport, Co Dublin to 109% at both Casement Aerodrome, Co Dublin (annual sunshine total of 1495.0 hours) and Cork Airport, Co Cork (annual sunshine total of 1567.5 hours) (*its sunniest year since 2010*). Annual sunshine totals were highest at Johnstown Castle, Co Wexford with 1641.0 hours (No LTA comparison*). Annual sunshine totals were lowest at Belmullet, Co Mayo with 1252.0 hours (No LTA comparison*). The highest number of daily sunshine hours recorded this year was 15.6 hours at Johnstown Castle, Co Wexford on Monday 1st June. The number of dull days² ranged from 34 days at Knock Airport, Co Mayo to 115 days at Valentia Observatory, Co Kerry.

Wind: Eight named storms and five months with storm force winds recorded

Annual mean wind speeds ranged from 6.4 knots (11.9 km/h) at Moore Park, Co Cork to 15.6 knots (28.9 km/h) at Mace Head, Co Galway. There were numerous days with gales and strong gales with up to storm force winds on the 13th Jan during Storm Brendan, 8th Feb, 10th and 11th Feb during Storm Ciara, 16th Feb during Storm Dennis, 29th Feb during Storm Jorge, 19th Aug during Storm Ellen, 31st Oct during Storm Aiden and 4th Dec. The number of days with up to strong gales ranged from zero days at a few stations to 24 days at Mace Head, Co Galway. The number of days with storm force winds were 5 days at Mace Head, Co Galway, 2 days at Roches Point, Co Cork, Malin Head, Co Donegal and Belmullet, Co Mayo. Both the year's highest gust and 10-minute mean wind speed was reported at Roche's Point, Co Cork on the 19th Aug during Storm Ellen. The highest gust was 77 knots (143 km/h) while the year's highest 10-minute mean wind speed was 60 knots (111 km/h).

EXTREME VALUES FOR 2020 AT SYNOPTIC STATIONS

Rainfall

Highest annual total: 2051.7 mm at Newport, Co Mayo (128% of its LTA)
Lowest annual total: 748.9 mm at Dublin Airport, Co Dublin (99% of its LTA)
Highest daily rainfall: 54.5 mm at Valentia Observatory, Co Kerry (55% of its monthly LTA) on Wed 29th July

Temperature

Highest mean annual temperature: 11.1°C at Sherkin Island, Co Cork (at its LTA)
Lowest mean annual temperature: 8.9°C at Knock Airport, Co Mayo (0.4 above its LTA)
Highest air temperature: 27.1°C at Newport, Co Mayo on Mon 1st June
Lowest air temperature: -6.1°C at Mullingar, Co Westmeath on Sun 19th January
Lowest grass minimum: -10.7°C at Oak Park, Co Carlow on Sun 19th January

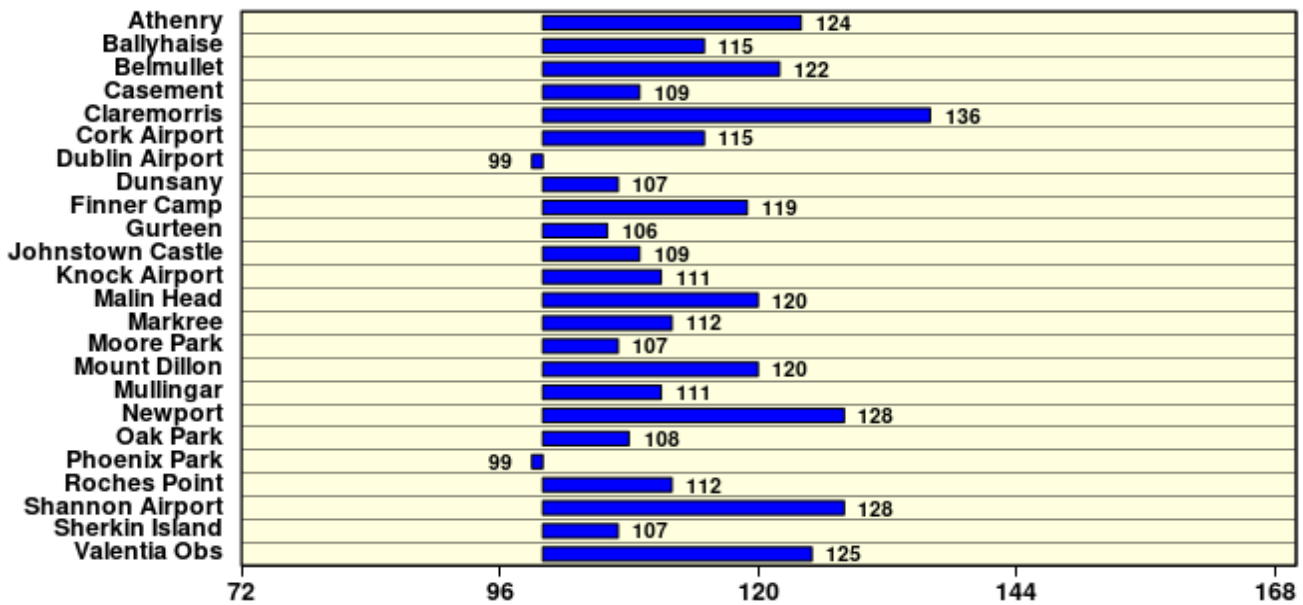
Sunshine

Highest annual total: 1641.0 hrs (daily mean 4.48 hrs/day) at Johnstown Castle*, Co Wexford
Lowest annual total: 1252.0 hrs (daily mean 3.42 hrs/day) at Belmullet*, Co Mayo
Highest daily sunshine for the year: 15.6 hours at Johnstown Castle*, Co Wexford on Mon 1st June

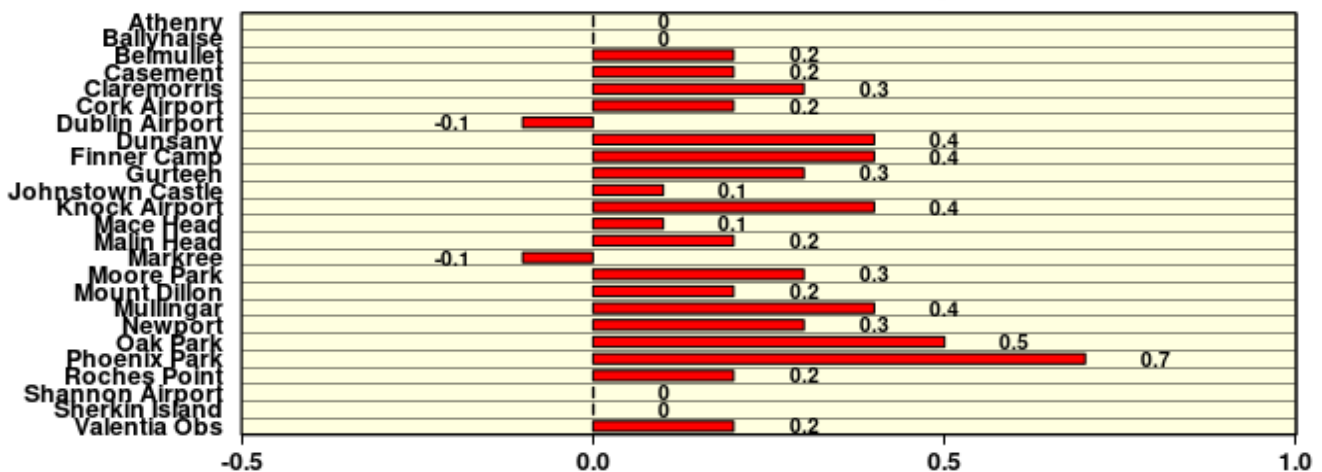
2020 Annual Percentage/Difference from 1981-2010 Normals

Based on Data from 1st January to 31 Dec 2020 on whole year basis

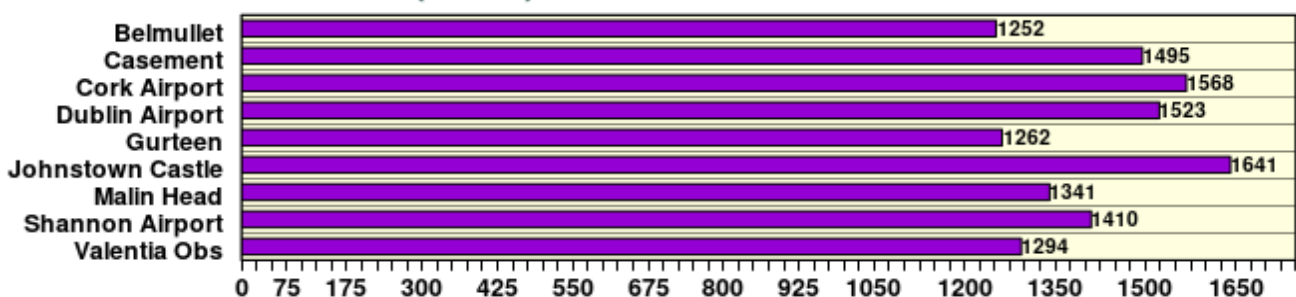
Rainfall (% of normal for period 1981-2010) on whole year basis



Temperature (°C) (difference from normal for period 1981-2010)



Sunshine (hours)



Issued by the Climatology and Observations Division of Met Éireann on Wednesday 6th January 2021. This report is based on available preliminary data from 25 principal weather stations operated by Met Éireann. Synoptic station data is midnight to midnight UTC. Long-Term Averages (LTAs) and "average" refer to the period 1981-2010. ¹A wet day is a day with 1.0 mm or more of rainfall. ²A dull day is a day with less than 0.5 hours of sunshine. ³A very wet day is a day with 10.0 mm or more of rainfall. ⁴An absolute drought is a period of 15 or more consecutive days to none of which is credited 0.2 mm or more of precipitation. ⁵A partial drought is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm. ⁶A dry spell is a period of 15 or more consecutive days to none of which is credited 1.0 mm or more of precipitation (i.e. daily tot < 1.0 mm). *Sunshine data is from the Autosol Network. LTAs for these sites are currently not used for comparison purposes. For more information, contact Met Éireann at 01-8064200 or e-mail: enq@met.ie