



# October 2020

## Cool, wet and windy

The month began with an upper level trough of low pressure moving down from the northwest and stalling over Ireland and the UK for most of the first week. This kept it cool and brought several bands of frontal rain or showers over the country in a cyclonic flow, including an active weather front from the east on the 4th. Another low-pressure system brought widespread heavy rain from the southwest on the 7th, which was followed by a cool and showery polar maritime north or north-westerly airflow for most of the second week with high pressure developing to the west of Ireland. High pressure built just to the north of Ireland at the beginning of the third week, which kept it mostly dry up to the 18th in an easterly airflow. Active weather fronts associated with a deep area of low pressure moved in over the country from the southwest and gave widespread heavy rain on the 19th and 20th. This was the beginning of a very wet and windy spell of weather dominated by an active Jetstream, which brought a series of deep Atlantic low-pressure systems close to or over the country during the final third of the month. This culminated with Storm Aiden rapidly developing and tracking close to the Northwest coast on the 31st bringing widespread gales and heavy rain.

### Rainfall: Above average in most places, highest in the West and Northwest

The majority of monthly rainfall totals were above their Long-Term Average (LTA). Percentage of monthly rainfall values ranged from 80% (monthly rainfall total of 101.7 mm) at Sherkin Island, Co Cork to 158% (monthly rainfall total of 212.8 mm) at Markree, Co Sligo (*its wettest October since 1998*). Monthly rainfall totals ranged from 80.4 mm (101% of its LTA) at Phoenix Park, Co Dublin to 228.1 mm at Valentia Observatory, Co Kerry (129% of its LTA) (*its wettest October since 2008*), just ahead of Newport, Co Mayo with 228.0 mm (130% of its LTA). The month's wettest day was also recorded at Valentia Observatory, Co Kerry with 49.1 mm on Mon 19th. The number of rain days ranged from 21 days at Dublin Airport to 28 days at a few stations. The number of wet days<sup>1</sup> ranged from 15 days at Dublin Airport to 25 days at both Newport, Co Mayo and Markree, Co Sligo. The number of very wet days<sup>3</sup> ranged from 1 day at Roche's Point, Co Cork to 8 days at both Newport, Co Mayo and Valentia Observatory, Co Kerry.

### Temperature: Below average everywhere

All mean air temperatures across the country were below their Long-Term Average for the month. Deviations from mean air temperature ranged from -0.8 °C (10.3 °C mean temperature) at Shannon Airport, Co Clare to -0.1 °C (10.1 °C, 9.4 °C mean temperature) at Phoenix Park, Co Dublin and Mullingar, Co Westmeath respectively. Mean temperatures ranged from 8.6 °C (0.3 °C below its LTA) at Knock Airport, Co Mayo to 11.7 °C (0.4 °C below its LTA) at Sherkin Island, Co Cork. The month's highest temperature was reported at Newport, Co Mayo on Saturday 3rd with a temperature of 16.8 °C. The month's lowest air minimum was recorded on Thursday 1st at Markree, Co Sligo with -0.8 °C while the lowest grass minimum was -3.0 °C reported at both Oak Park, Co Carlow on Thursday 1st and Moore Park, Co Cork on Thursday 22nd. More than half of stations reported ground frost. The number of days with ground frost ranged from zero days at a few stations to 12 days at Markree, Co Sligo. Less than half of stations reported air frost. The number of days with air frost ranged from zero days at Phoenix Park, Co Dublin to 1 day at both Markree, Co Sligo and Mount Dillon, Co Roscommon.

### Sunshine: Above average everywhere

All available sunshine totals were above their Long-Term Average (LTA). Percentage of monthly sunshine values ranged from 103% (monthly sunshine total of 104.9 hours) at Casement Aerodrome, Co Dublin to 134% (monthly sunshine total of 126.9 hours) at Cork Airport, Co Cork. Monthly sunshine totals ranged from 78.6 hours (No LTA comparison\*) at Malin Head, Co Donegal to 139.1 hours (No LTA comparison\*) at Johnstown Castle, Co Wexford. The highest number of daily sunshine hours recorded this month was 10.3 hours at Cork Airport, Co Cork on Friday 2nd. The number of dull days<sup>2</sup> ranged from 3 days at Shannon Airport, Co Clare to 8 days at Malin Head, Co Donegal. Dublin Airport, Co Dublin had more hours of sunshine in October (120.6 hours (116% of its LTA)) than in July (104 hours) or August (97 hours) this year. Shannon Airport had its sunniest October on record with 120.9 hours (133% of its LTA) (record length 75 years).

### Wind: Storm force winds reported during Storm Aiden

Monthly mean wind speeds ranged from 6.6 knots (12.2 km/h) at Ballyhaise, Co Cavan to 17.4 knots (32.2 km/h) at Mace Head, Co Galway. Gales were reported on 12 days during the month with strong gales reported on the 20th 21st, 23rd and 24th and storm force winds reported on the 31st during Storm Aiden. The number of days with gales ranged from zero days at a few stations to 7 days at Mace Head, Co Galway. The number of days with up to strong gales ranged from zero days at most stations to 3 days at Mace Head, Co Galway and 2 days at both Malin Head, Co Donegal and Belmullet, Co Mayo. The number of days with storm force winds was 1 day at Malin Head, Co Donegal. Both the month's highest gust and 10-minute mean wind speed was reported at Malin Head, Co Donegal on the 31st during Storm Aiden. The highest gust was 70 knots (130 km/h) while the month's highest 10-minute mean wind speed was 53 knots (98 km/h). Five stations in the Southwest, including Cork Airport, Co Cork, Valentia Obs. Co Kerry, Roches Point, Co Cork, Sherkin Island, Co Cork and Moore Park, Co Cork had their highest mean wind in October for over 10 years.

## EXTREME VALUES AT SYNOPTIC STATIONS

### Rainfall

Highest total: 228.1 mm at Valentia Observatory, Co Kerry (129% of its LTA) (*its wettest October since 2008*)  
Lowest total: 80.4 mm at Phoenix Park, Co Dublin (101% of its LTA)  
Highest daily rainfall: 49.1 mm at Valentia Observatory, Co Kerry (28% of its monthly LTA) on Mon 19th

### Temperature

Highest mean monthly temperature: 11.7°C at Sherkin Island, Co Cork (0.4°C below its LTA)  
Lowest mean monthly temperature: 8.6°C at Knock Airport, Co Mayo (0.3°C below its LTA)  
Highest Air temperature: 16.8°C at Newport, Co Mayo (2.6 °C above its LTA) on Sat 3rd  
Lowest air temperature: -0.8°C at Markree, Co Sligo (6.6 °C below its LTA) on Thu 1st  
Lowest grass minimum: -3.0°C at both Oak Park, Co Carlow on Thu 1st and Moore Park, Co Cork on Thu 22nd

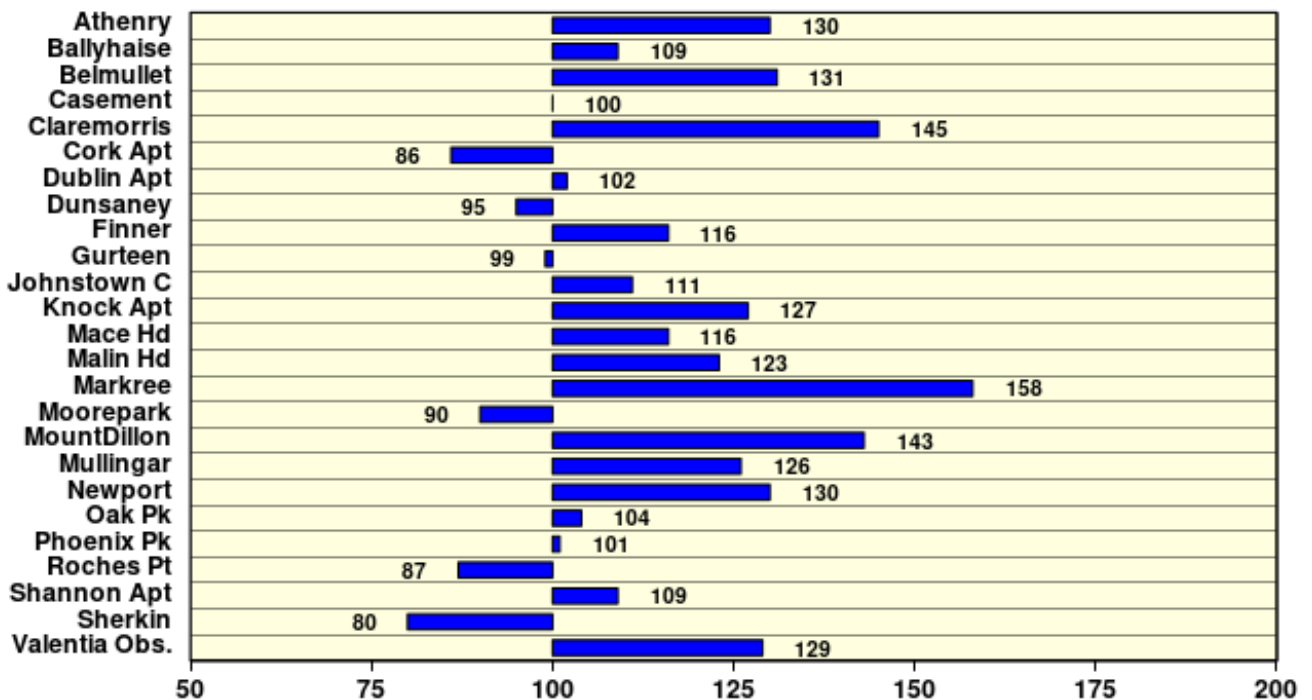
### Sunshine

Highest monthly total: 139.1 hrs (daily mean 4.49 hrs/day) at Johnstown Castle\*, Co Wexford  
Lowest monthly total: 78.6 hrs (daily mean 2.54 hrs/day) at Malin Head\*, Co Donegal  
Highest daily sunshine: 10.3 hours at Cork Airport, Co Cork on Fri 2nd (*its highest daily sunshine total for October since 2010*)

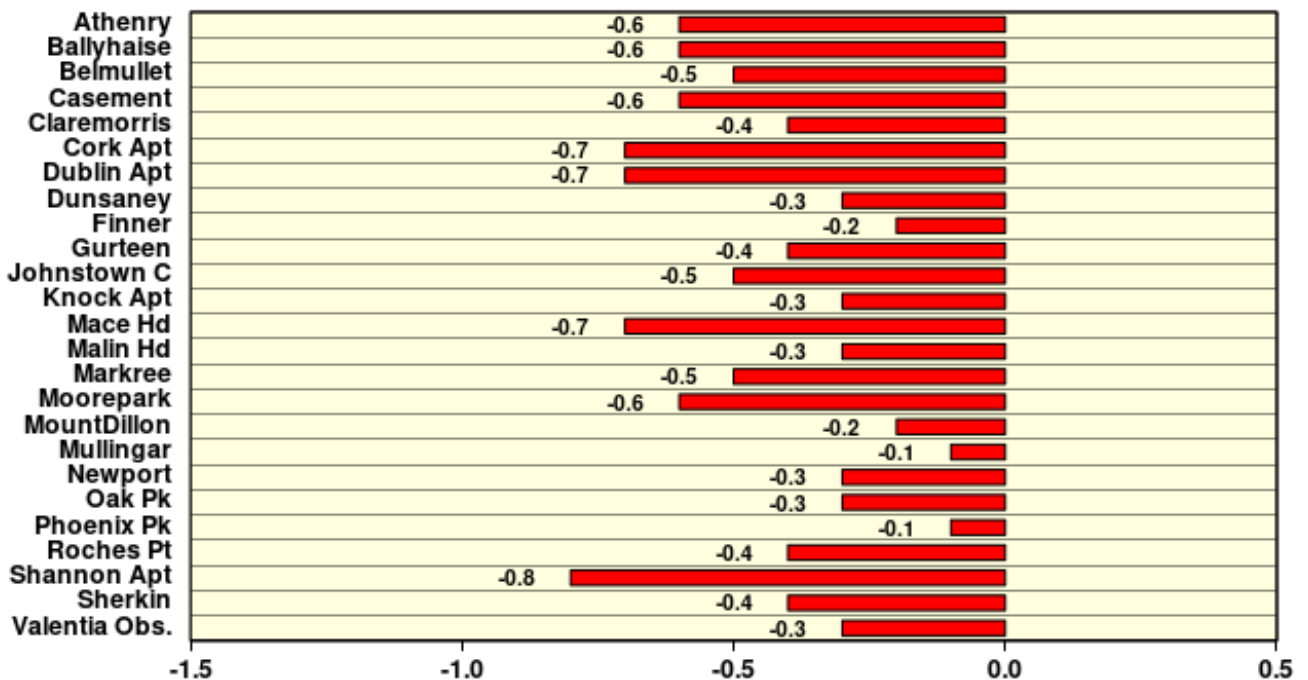
# October 2020

Based on Data from 1- 31 October 2020 on whole month basis

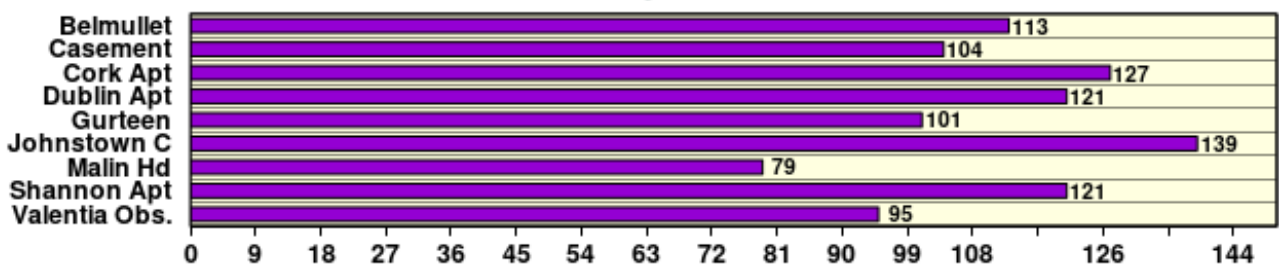
## Rainfall (% of average for period 1981-2010) on whole month basis



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



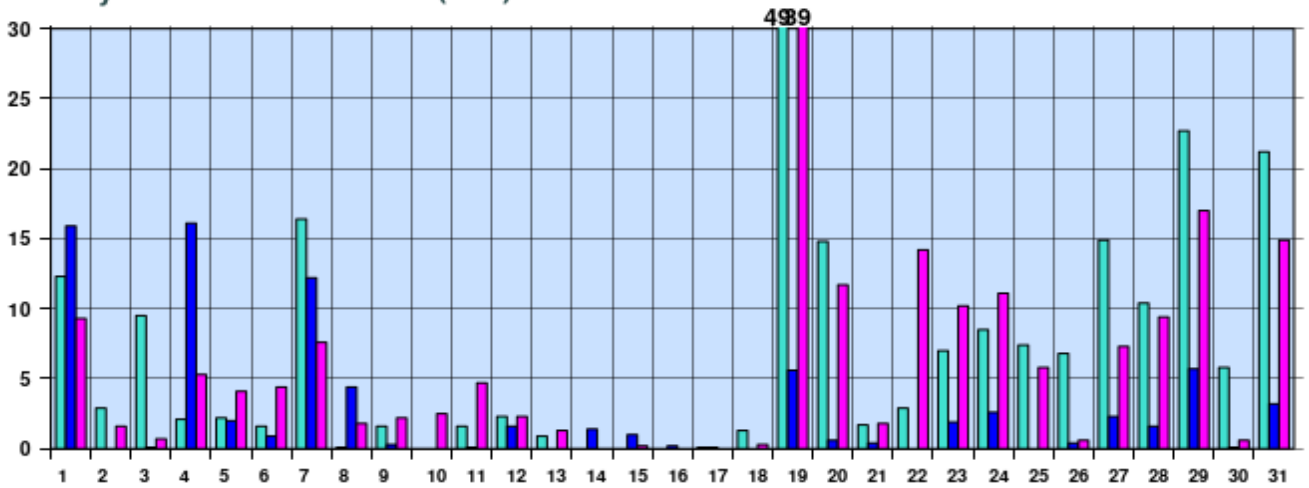
## Sunshine (Number of monthly sunshine hours)



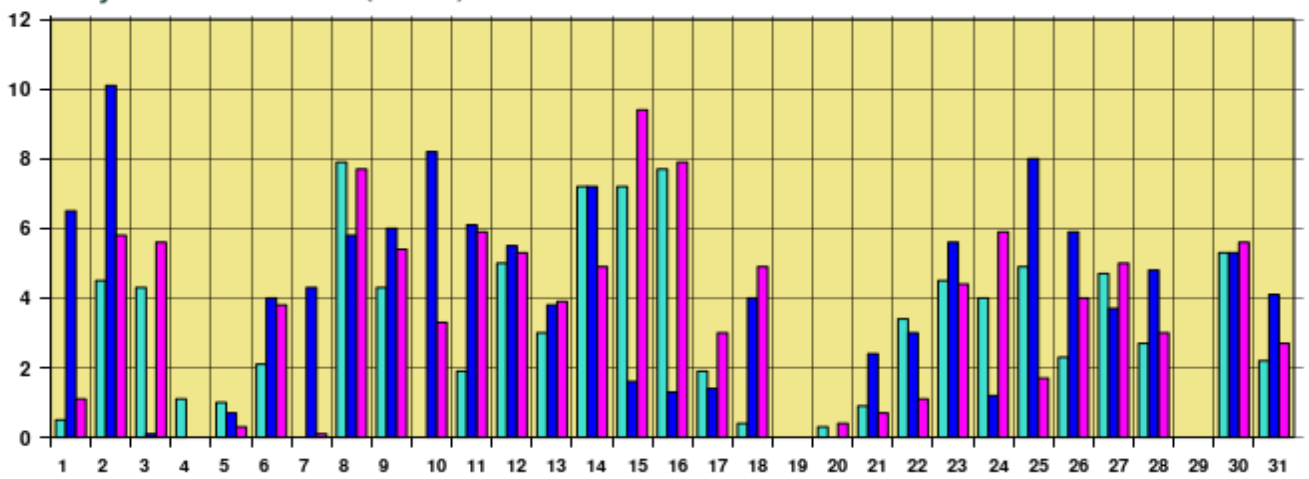
# October 2020 Daily Values at selected synoptic stations

Based on data from 1-31 October 2020 on a pro rata basis

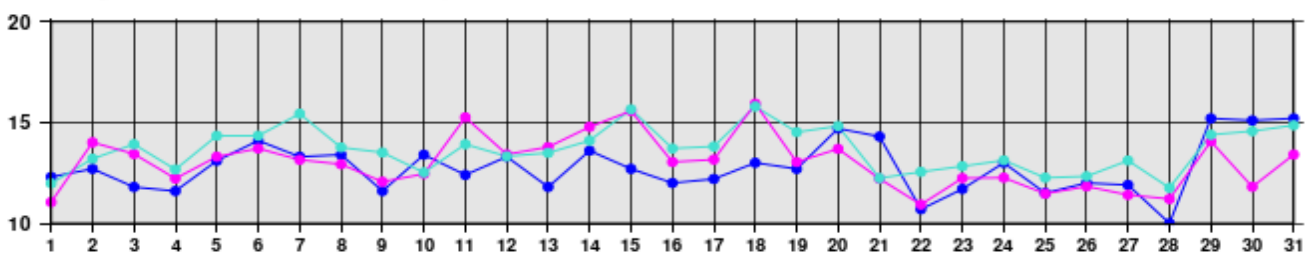
## Daily 00-24h rainfall values(mm)



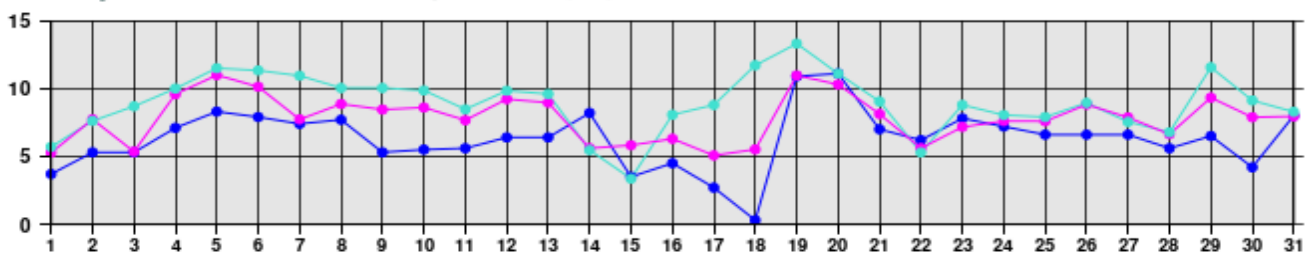
## Daily sunshine values(hours)



## Daily 00-24h maximum temperature (°C)



## Daily 00-24h minimum temperature (°C)



- Valentia Observatory - Dublin Airport - Belmullet

Issued by Met Éireann on Tuesday the 3rd November 2020. 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. <sup>1</sup>A wet day is a day with 1.0 mm or more of rainfall. <sup>2</sup>A dull day is a day with less than 0.5 hours of sunshine. <sup>3</sup>A very wet day is a day with 10.0 mm or more of rainfall. <sup>4</sup>An absolute drought is a period of 15 or more consecutive days to none of which is credited 0.2 mm or more of precipitation. <sup>5</sup>A partial drought is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm. <sup>6</sup>A 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