



# OCT 2018

## ***A cool and dry month with above average sunshine***

Air pressure was relatively high over Ireland for the first week of October with the North Atlantic Jet Stream staying to the North. After a mild and mostly cloudy start, a weak cold front introduced a cooler air mass from the northwest for the second half of the week. Much of the second week was mild with a southeast to southwesterly airflow but it became more unsettled as the jet stream moved southwards. Storm Callum, with a minimum pressure of 938 hPa (the lowest early season pressure for an extratropical Atlantic storm since at least 1979), moved northwards close to the west of Ireland on the 12th giving the windiest spell of the month and widespread heavy rain on the 12th and 13th. It settled down again for most of the second half of the month with high pressure close to Ireland. It was cool overall and especially from the 26th onwards when a cold front introduced an Arctic Maritime air mass over Ireland from the north. This gave cold clear conditions with heavy showers mainly in the north and west, some wintry. The month finished cold with Atlantic frontal systems encroaching from the west bringing bands of rain and localised intense hail showers.

## **Rainfall: Below average totals everywhere**

All monthly rainfall totals across the country were below their Long-Term Average (LTA). Percentage of monthly rainfall values ranged from 38% (monthly rainfall total of 42.3 mm) at Mount Dillon, Co Roscommon to 92% (monthly rainfall total of 134.9 mm) at Belmullet, Co Mayo. Monthly rainfall totals ranged from 40.2 mm (39% of LTA) at Gurteen, Co Tipperary to 140.9 mm (80% of LTA) at Newport, Co Mayo. The highest daily rainfall total was 29.2 mm at Fermoy (Moore Park), Co Cork on the 12th. The number of rain days ranged from 11 days at Casement Aerodrome, Co Dublin to 24 days at both Finner, Co Donegal and Belmullet, Co Mayo. The number of wet days<sup>1</sup> ranged from 5 days at Dublin Airport to 19 days at both Markree, Co Sligo and Malin Head, Co Donegal. The number of very wet days<sup>3</sup> ranged from zero days at both Mace Head, Co Galway and Gurteen, Co Tipperary to 6 days at Newport, Co Mayo.

## **Temperature: Most monthly mean temperatures were below average**

Nearly all mean air temperatures were below their Long-Term Average (LTA) for the month. Deviations from mean air temperature for the month ranged from -1.0 °C at Athenry, Co Galway and Dublin Airport (9.2 °C, 9.3 °C mean temperature respectively) to 0.0 °C at Newport, Co Mayo and Finner, Co Donegal (10.9 °C, 10.3°C mean temperature respectively). Mean temperatures for the month ranged from 8.9 °C (0.1 °C below LTA) at Knock Airport, Co Mayo to 11.2 °C (0.2 °C below LTA) at Mace Head, Co Galway. The month's lowest temperatures were recorded on the 30th. The lowest air minimum was reported at Dublin Airport with a temperature of -4.7 °C (its lowest October daily minimum temperature since 1941). The lowest grass minimum was reported at Casement Aerodrome, Co Dublin with -9.2 °C (its lowest October daily grass minimum temperature since 1964). The highest maximum was reported on the 10th at Finner, Co Donegal with a temperature of 21.1 °C. All stations reported ground frost during the month. The number of days with ground frost ranged from 1 day at Sherkin Island, Co Cork to 17 days at Dublin (Phoenix Park). More than half of stations reported air frost. The number of days with air frost ranged from zero days at a few stations to 8 days at Mount Dillon, Co Roscommon.

## **Sunshine: All stations had above average sunshine**

All available monthly sunshine totals were above their Long-Term Average (LTA). Percentage of monthly sunshine values ranged from 116% (monthly sunshine total of 105.4 hours) at Shannon Airport, Co Clare to 138% (the month's highest monthly sunshine total of 131.2 hours) at Cork Airport. Monthly sunshine totals were lowest at Malin Head, Co Donegal with 81.7 hours (No LTA comparison\*). The highest number of daily sunshine hours recorded this month was 10.0 hours at Gurteen\*, Co Tipperary on the 15th Oct. The number of dull days ranged from 6 days at Dublin Airport to 12 days at both Malin Head, Co Donegal and Belmullet, Co Mayo.

## **Wind: Storm Callum brought Storm force winds to the South and West**

Monthly mean wind speeds ranged from 5.5 knots (10.2 km/h) at Fermoy (Moore Park), Co Cork to 16.7 knots (30.9 km/h) at Malin Head, Co Donegal. Gales were reported on the 7th, 8th, 9th, 11th, 12th, 23rd, 26th and the 27th. The number of days with gales ranged from zero days at Dublin (Phoenix Park) to 4 days at both Mace Head, Co Galway and Malin Head, Co Donegal. Strong gales were reported on the 11th and 12th. The number of days with strong gales ranged from zero at Dublin (Phoenix Park) to 2 days at both Sherkin Island, Co Cork and Roche's Point, Co Cork. Storm force winds were reported on the 11th at Sherkin Island, Co Cork and the 12th at Belmullet, Co Mayo. Mean wind speeds were storm force on the 11th and the 12th (due to storm Callum) at Sherkin Island, Co Cork and at Belmullet, Co Mayo respectively. The month's highest 10-minute mean wind speed was reported at both Sherkin Island, Co Cork and Belmullet, Co Mayo on the 11th and 12th respectively, with 49 knots (91 km/h). The highest gust was 67 knots (124 km/h) reported at Belmullet, Co Mayo on the 12th.

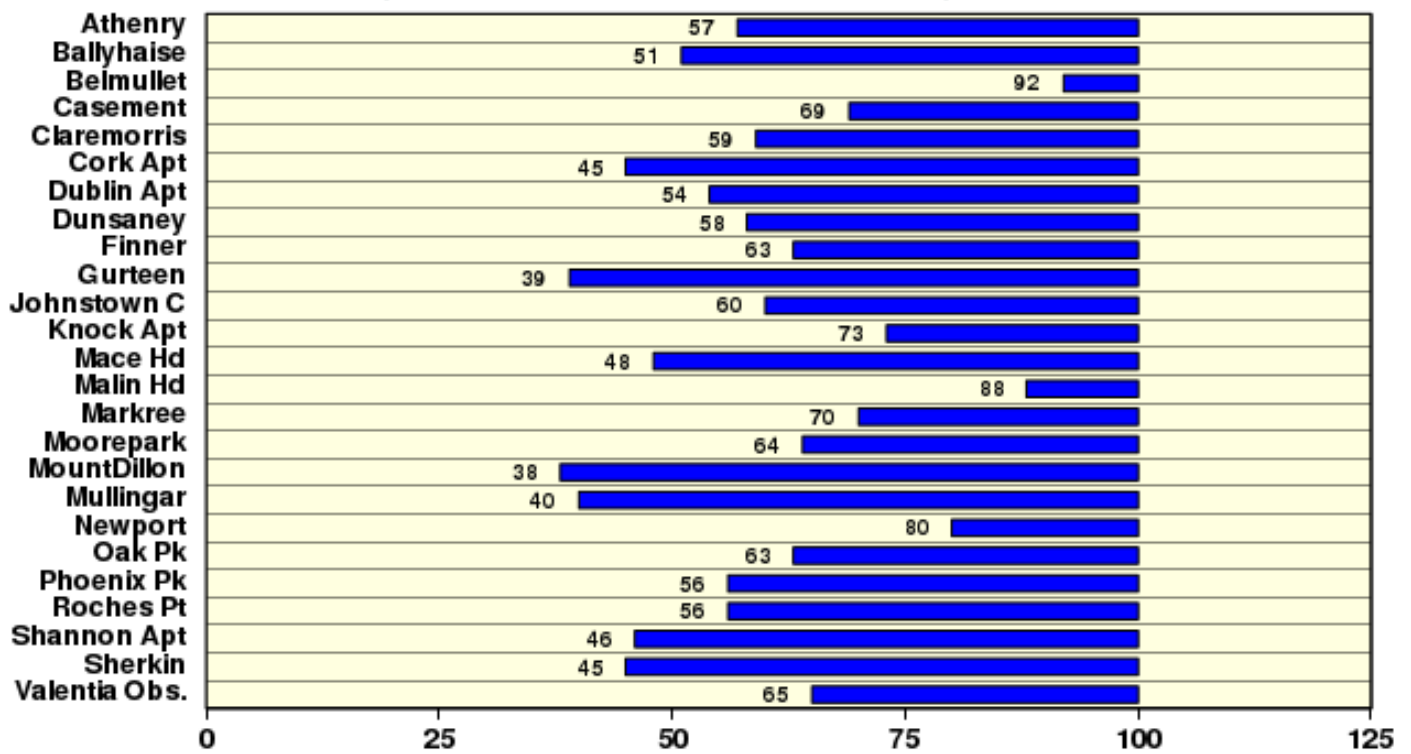
## **EXTREME VALUES AT SYNOPTIC STATIONS**

<b>Rainfall</b>	Highest total: 140.9 mm (80% of LTA) at Newport, Co Mayo Lowest total: 40.2 mm (39% of LTA) at Gurteen, Co Tipperary Highest daily rainfall: 29.2 mm at Moore Park, Co Cork on the 12th
<b>Temperature</b>	Highest mean monthly temperature: 11.2°C at Mace Head, Co Galway (0.2°C below LTA) Lowest mean monthly temperature: 9.0°C at Mullingar, Co Westmeath (0.5°C below LTA) Highest Air temperature: 21.1°C at Finner, Co Donegal on the 10th ( <i>its highest October temperature since 2010</i> ) Lowest air temperature: -4.7°C at Dublin Airport, Co Dublin on the 30th ( <i>its lowest October min since 1941</i> ) Lowest grass minimum: -9.2°C at Casement, Co Dublin on the 30th ( <i>its lowest October grass min since 1964</i> )
<b>Sunshine</b>	Highest monthly total: 131.2 hrs (daily mean 4.23 hrs/day) at Cork Airport, Co Cork Lowest monthly total: 81.7 hrs (daily mean 2.64 hrs/day) at Malin Head*, Co Donegal Highest daily sunshine: 10.0 hrs at Gurteen, Co Tipperary
<b>Pressure</b>	Highest MSLP value: 1043.8 at Sherkin Island, Co Cork on the 22nd ( <i>highest October value countrywide on record</i> )

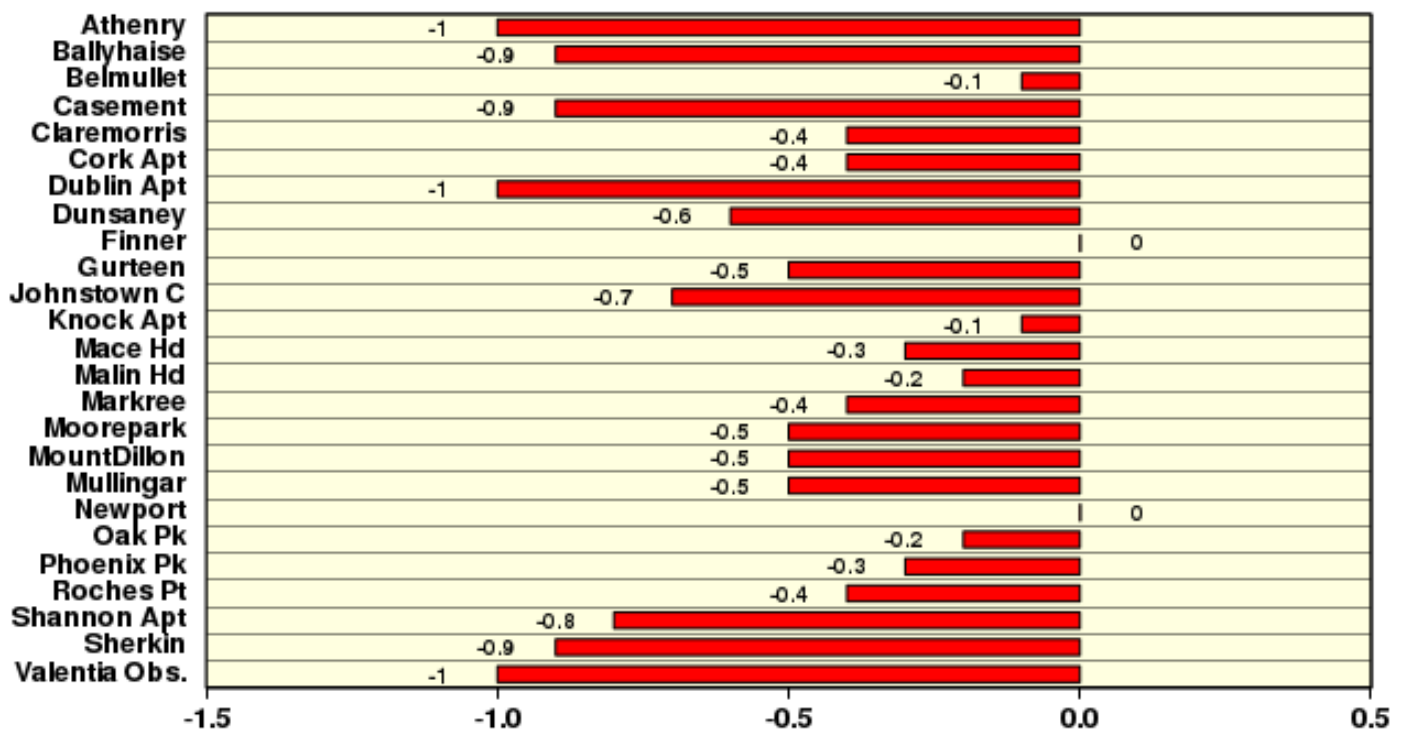
# October 2018

Based on Data from 1-31 October 2018 on whole month basis

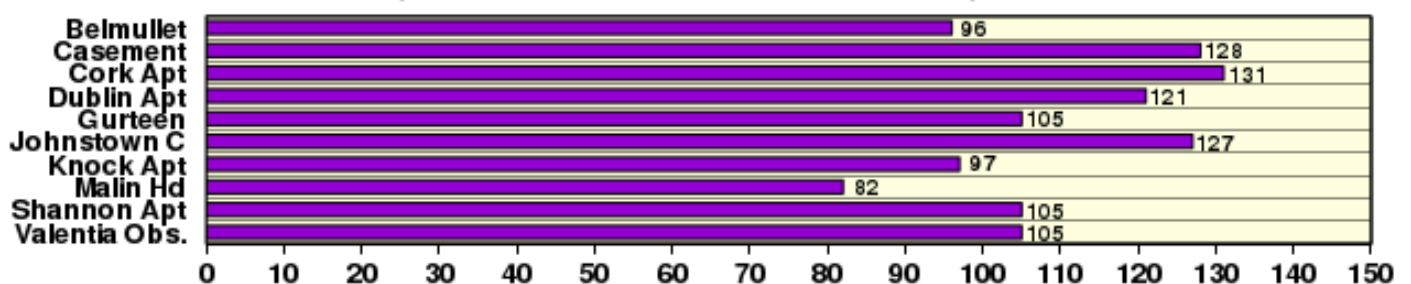
## Rainfall (% of average for period 1981-2010) on whole month basis



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



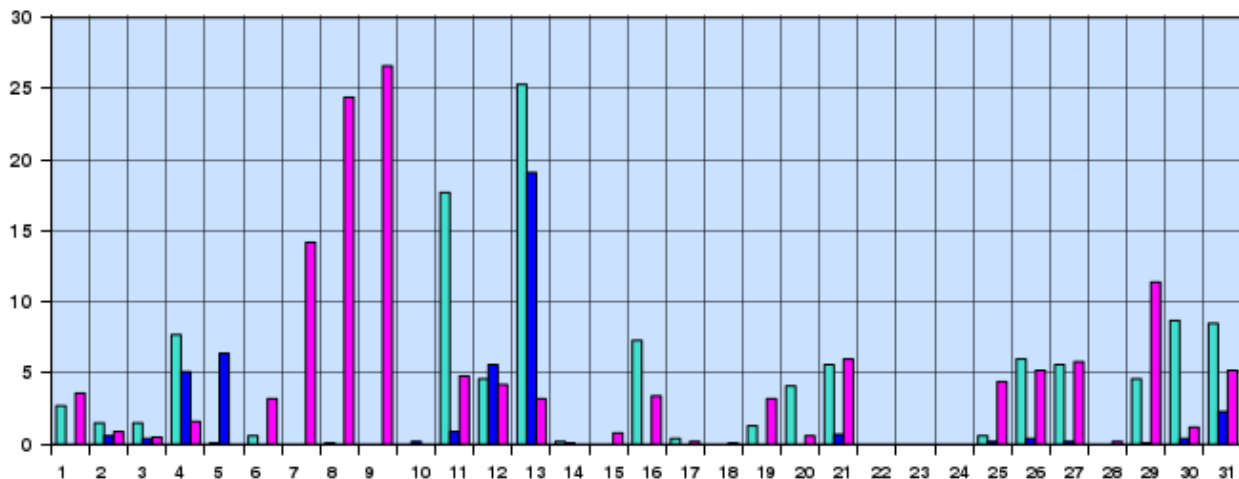
## Sunshine (Number of monthly sunshine hours)



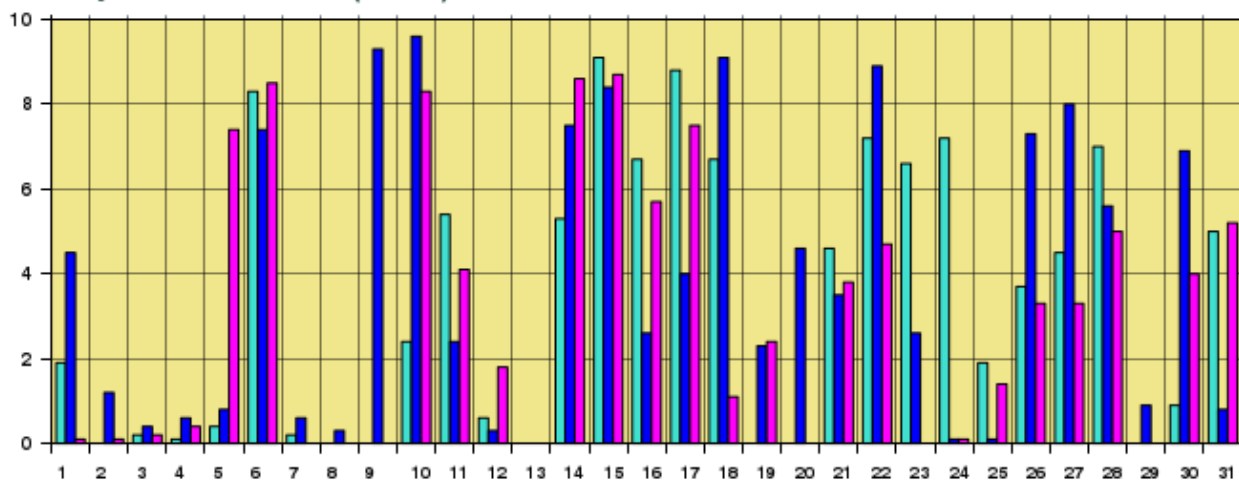
# October 2018 Daily Values at selected synoptic stations

Based on data from 1-31 October 2018 on a pro rata basis

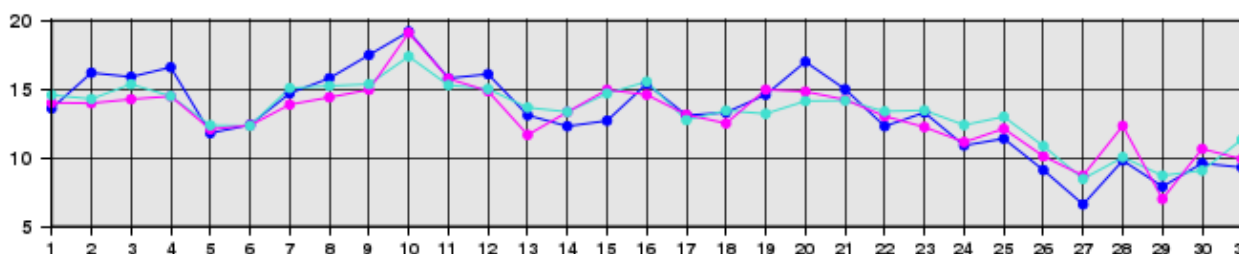
## Daily 00-24h rainfall values(mm)



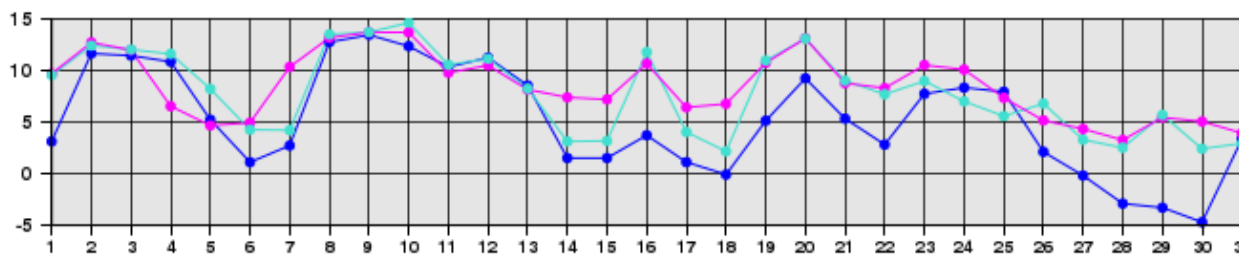
## Daily sunshine values(hours)



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



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



- Valentia Observatory - Dublin Airport - Belmullet

Source: newR/WXBULL/CurrentMonthlyTemp.R Plotted Fri Nov 2 09:22:25 2018

Issued by the Climatology and Observations Division of Met Éireann on Friday November 2nd 2018. 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> '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). <sup>2</sup> A wet day is a day with 1.0 mm or more of rainfall. <sup>3</sup> A dull day is a day with less than 0.5 hours of sunshine. <sup>4</sup> A very wet day is a day with 10.0 mm or more of rainfall. \*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](mailto:enq@met.ie)