



Winter

(December 2018, January 2019 & February 2019)

Dry and very mild

The winter of 2018/2019 was the warmest winter on record at many of our stations. It was also drier than average at most of our stations. The first three weeks of December were mild and unsettled with frequent bouts of Atlantic driven low pressure systems and associated fronts traversing the country. Storm Deirdre on the 15th was one of several windy spells during this period. High pressure developed from the south over Ireland towards Christmas, which brought settled weather for Christmas and final week of the year. The first half of January stayed mostly dry and relatively mild with high pressure dominating in a slack, cloudy airflow. The second half of January was more unsettled and cooler as Atlantic weather fronts crossed the country periodically and the air masses alternated between tropical maritime and polar maritime. The end of January and start of February saw the coldest spell of the winter as a polar maritime air mass dominated and low pressure systems moved to the south of Ireland. This brought wintry precipitation and lying snow in places. It was short lived however as most of February was very mild. The first half of February saw Atlantic westerlies dominating again. Storm Erik on the 8th and 9th gave the windiest spell of the month. The second half of February saw high pressure over mainland Europe feeding in a mild and mostly dry southerly airflow over Ireland with good sunshine towards the end of the month.

Rainfall: Below average in most places

Nearly all rainfall totals were below their Long-Term Average (LTA) for the season. Percentage of seasonal rainfall values ranged from 66% (total of 128.6 mm) at Dublin (Phoenix Park) (*its driest winter since 2006*) to 122% (total of 562.7 mm) at Valentia Observatory, Co Kerry. Other notable rainfall totals for the season were 150.7 mm (68% of its LTA) at Dunsany, Co Meath, and 289.6 mm (103% of its LTA) at Shannon Airport, Co Clare. The highest daily rainfall total was 39.8 mm at Newport, Co Mayo on the 15th Dec. The number of rain days ranged from 43 days at Dublin Airport to 79 days at Belmullet, Co Mayo. The number of wet days¹ ranged from 30 days at both Dublin (Phoenix Park) and Dublin Airport to 66 days at Valentia Observatory, Co Kerry. The number of very wet days³ ranged from 1 day at Casement Aerodrome, Co Dublin to 19 days at Valentia Observatory, Co Kerry.

Temperature: Warmest winter on record at two thirds of stations

All mean air temperatures across the country were above their Long-Term Average (LTA) for the season. A number of stations had their warmest winter on record including Dublin (Phoenix Park), Valentia, Co Kerry, Cork Airport, Co Cork and Mullingar, Co Westmeath (records going back to 1855, 1893, 1962 and 1950 respectively). Deviations from mean air temperature for the season ranged from 1.2 °C (6.6 °C mean temperature) at Dublin Airport to 2.1 °C (7.4 °C mean temperature) at Finner, Co Donegal. Mean temperatures for the season ranged from 6.0 °C (1.8 °C above its LTA) at Knock Airport, Co Mayo (*its warmest winter since 1997*) to 9.3 °C (1.6 °C above its LTA) at Sherkin Island, Co Cork (*its warmest winter since 1975*). The season's highest temperature was reported at Mount Dillon, Co Roscommon on the 25th Feb with a temperature of 17.3 °C (*its highest max for winter since 2006*). Both the season's lowest air and grass minimum temperature were recorded on the 31st Jan at Dublin Airport. The lowest air minimum was -5.8 °C, while the lowest grass minimum was -10.2 °C. All stations reported ground frost during the season. The number of days with ground frost ranged from 9 days at Mace Head, Co Galway to 42 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 18 days at Dublin Airport.

Sunshine: February was the sunniest month

Percentage of Long-Term Average (LTA) sunshine values were variable across the country. Percentage of seasonal sunshine values ranged from 57% (the season's lowest seasonal sunshine total of 84.4 hours) at Knock Airport, Co Mayo to 104% (seasonal sunshine total of 179.9 hours) at Casement Aerodrome, Co Dublin. The season's highest sunshine total was 189.6 hours at Dublin Airport (No LTA comparison*). The highest number of daily sunshine hours recorded this season was 10.1 hours at Johnstown Castle*, Co Wexford on the 26th Feb. The number of dull days² ranged from 39 at Casement Aerodrome, Co Dublin to 56 at Knock Airport, Co Mayo.

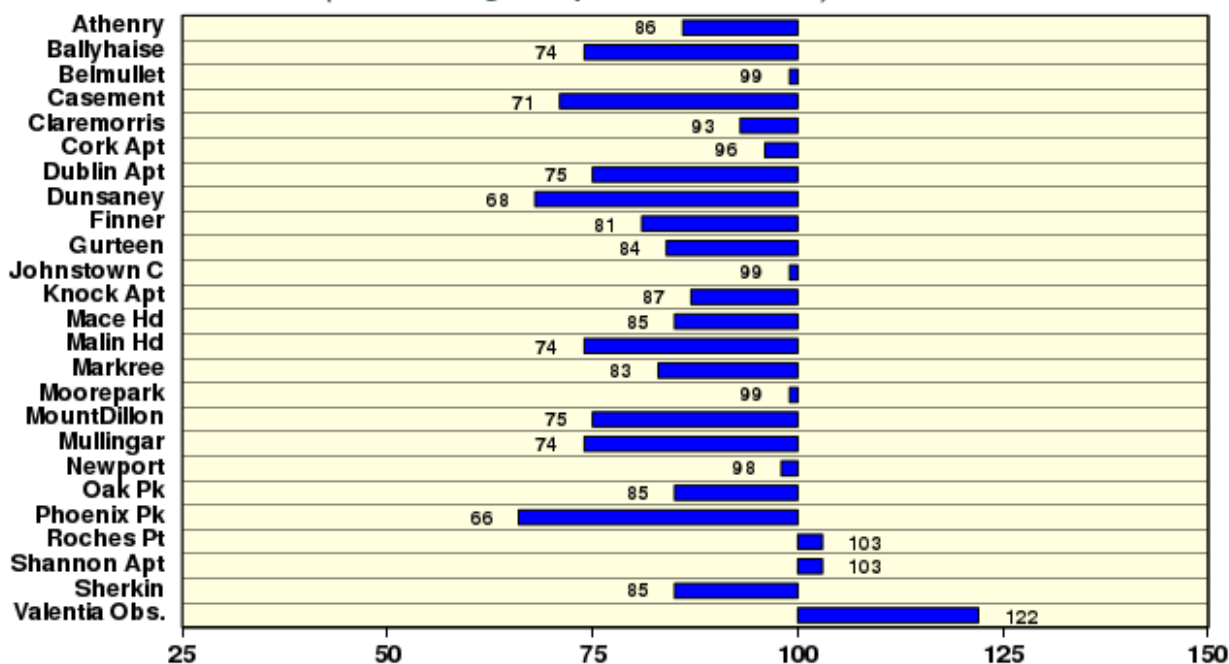
Wind: Two Named Storms

Seasonal mean wind speeds ranged from 6.7 knots (12.4 km/h) at Fermoy (Moore Park), Co Cork to 16.2 knots (30.0 km/h) at Mace Head, Co Galway. Gales were reported on numerous days with strong gales reported on 5 days or more during the season. Storm force winds were reported on the 26th Jan and also the 8th Feb (due to storm Erik). The number of days with gales ranged from zero days at a few stations to 14 days at Mace Head, Co Galway. The number of days with strong gales ranged from zero days at Dublin (Phoenix Park) to 6 at both Mace Head, Co Galway and Roche's Point, Co Cork. Both the season's highest gust and 10-minute mean wind speed were reported on the 26th Jan. The highest gust was 67 knots (124 km/h) reported at Mace Head, Co Galway while the season's highest 10-minute mean wind speed was 51 knots (95 km/h) at Malin Head, Co Donegal.

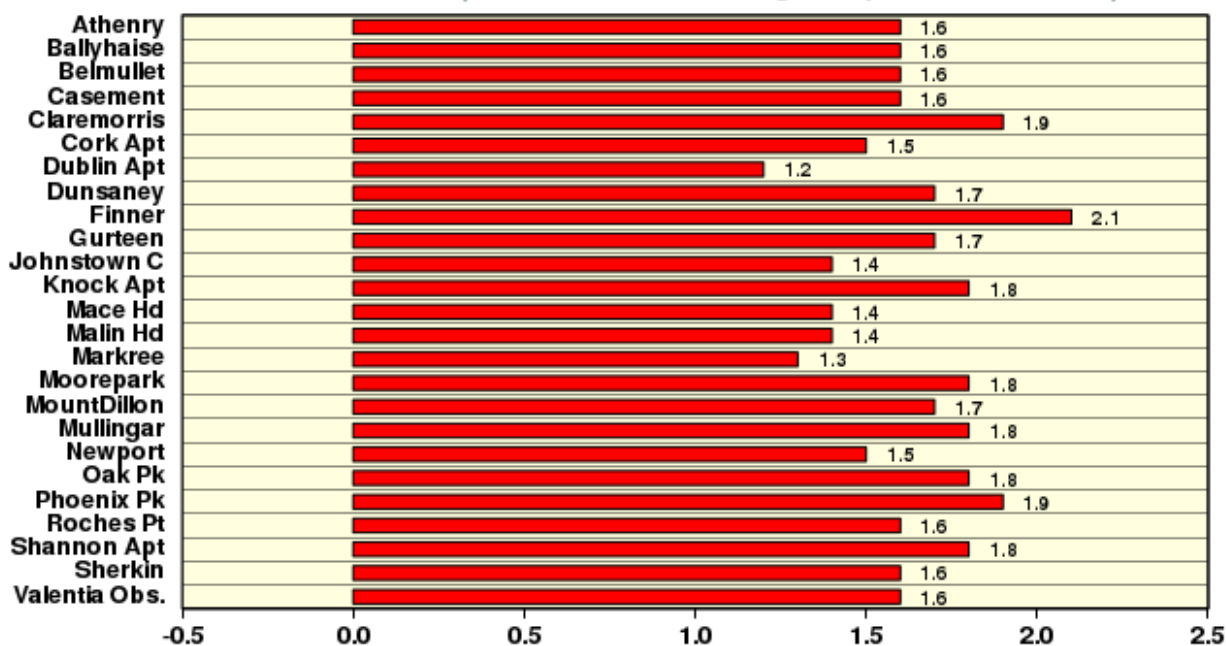
EXTREME VALUES FOR WINTER AT SYNOPTIC STATIONS

Rainfall	Highest seasonal total: 562.7 mm (121% of LTA) at Valentia Observatory, Co Kerry Lowest seasonal total: 128.6 mm (66% of LTA) at Dublin (Phoenix Park) (<i>its driest winter since 2006</i>) Highest daily rainfall: 39.8 mm at Newport, Co Mayo on Dec 15th
Temperature	Highest seasonal mean temperature: 9.3°C at Sherkin Island, Co Cork (1.6°C above LTA) (<i>its warmest winter since 1975</i>) Lowest seasonal mean temperature: 6.0°C at Knock Airport, Co Mayo (1.8°C above LTA) (<i>its warmest winter since 1997</i>) Highest Air temperature: 17.3°C at Mount Dillon, Co Roscommon on Feb 25th (<i>its highest max for winter since 2006</i>) Lowest air temperature: -5.8°C at Dublin Airport, on Jan 31st Lowest grass minimum: -10.2°C at Dublin Airport on Jan 31st
Sunshine	Highest seasonal total: 189.6 hrs (daily mean 2.11 hrs/day) at Dublin Airport Lowest seasonal total: 84.4 hrs (daily mean 0.94 hrs/day) at Knock Airport, Co Mayo (<i>its duller winter since 1997</i>) Highest daily sunshine: 10.1 hrs at Johnstown Castle*, Co Wexford on Feb 26th

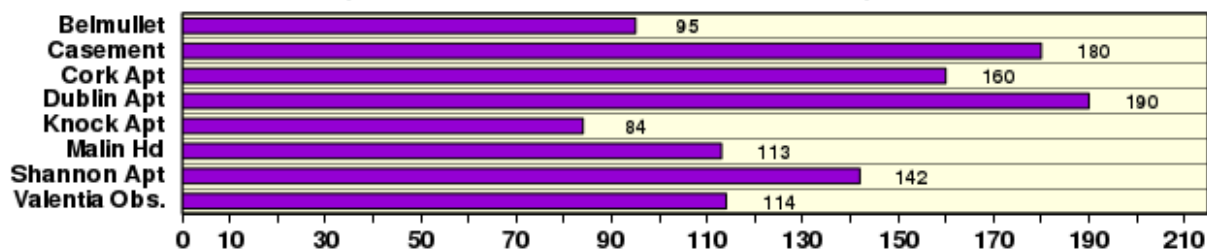
Rainfall (% of average for period 1981-2010) on whole season basis



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



Sunshine (Number of seasonal sunshine hours)



Issued by the Climatology and Observations Division of Met Éireann on Tuesday March 5th 2019. 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. ¹ '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). ² A wet day is a day with 1.0 mm or more of rainfall. ³ A dull day is a day with less than 0.5 hours of sunshine. ⁴ 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