



Monthly Weather Summary

The Weather of December 2010

Coldest December on record; mainly dry and sunny

Spells of exceptionally cold weather during December brought some of the lowest temperatures ever recorded in Ireland, together with heavy snowfalls in places. There were also short periods of milder weather, while overall the month was drier and sunnier than normal. Mean air temperatures for the month were up to six degrees lower than normal in places and it was the coldest December on record almost everywhere. It was also the coldest of any month at Dublin Airport, Casement Aerodrome and Mullingar, each with over 50 years of record. The lowest December air temperature ever measured in the country, -17.5°C , was recorded at the climatological station of Straide, Co. Mayo, on the morning of the 25th, while Casement Aerodrome's minimum value of -15.7°C on the same day was the lowest value of any month ever recorded in the Dublin area. Ballyhaise's mean monthly temperature of -1.4°C represents the lowest ever measured in the country for any month; the *maximum* daily value of -9.4°C at the same station on the 21st was the lowest daily maximum on record. Between 14 and 24 days with air frost were recorded during the month, over twice the normal number for December. Almost all parts of the country received snowfall at times, with most persistent falls over Leinster. Although there was some thawing of lying snow around mid-month, by Christmas Day there was 27cm of snow lying at Casement Aerodrome. Monthly rainfall totals (including snowmelt) were below normal everywhere; heaviest daily falls were on the 26th/27th in the south and southwest, as bands of heavy rain introduced much milder conditions at the end of the month. There were between 6 and 11 wetdays during the month at most stations (days with 1mm or more rainfall), around half of the December average. Sunshine totals varied widely, but it was a very sunny month in the west and southwest, where both Belmullet and Valentia Observatory recorded their sunniest December on record.

1st to 8th: A north to northeasterly airstream over Ireland brought a continuation of the very cold spell which began in late November. Wintry showers or longer spells of sleet or snow brought further accumulations of snow, particularly in eastern, northern and western areas. Daytime temperatures were close to freezing, while minimum values dropped below -10°C in parts of Leinster, falling below -16°C at Mt. Juliet, Co. Kilkenny, on the 3rd.

9th to 15th: Pressure rose over Ireland as an anticyclone to the southwest moved northwards, bringing mostly dry but cloudy conditions with light winds. Daytime temperatures rose above freezing, bringing some thawing of lying snow, but frost remained widespread at night.

16th to 25th: A cold front moving southwards on the 16th re-introduced an arctic airstream across the country. Bitterly cold northerly winds brought snow showers in many areas, most frequently along Atlantic and Irish Sea coasts, causing considerable disruption of road and air travel. Freezing conditions persisted for long periods, with the temperature remaining below 0°C for nine consecutive days in some inland areas.

26th to 31st: Frontal systems gave spells of rain on the 26th and 27th, heavy over Munster and Connacht, while bringing considerably milder Atlantic air across the country, leading to a rapid thaw of lying snow in most areas. Mild, cloudy and damp conditions for the remainder of the period, with widespread mist or fog.

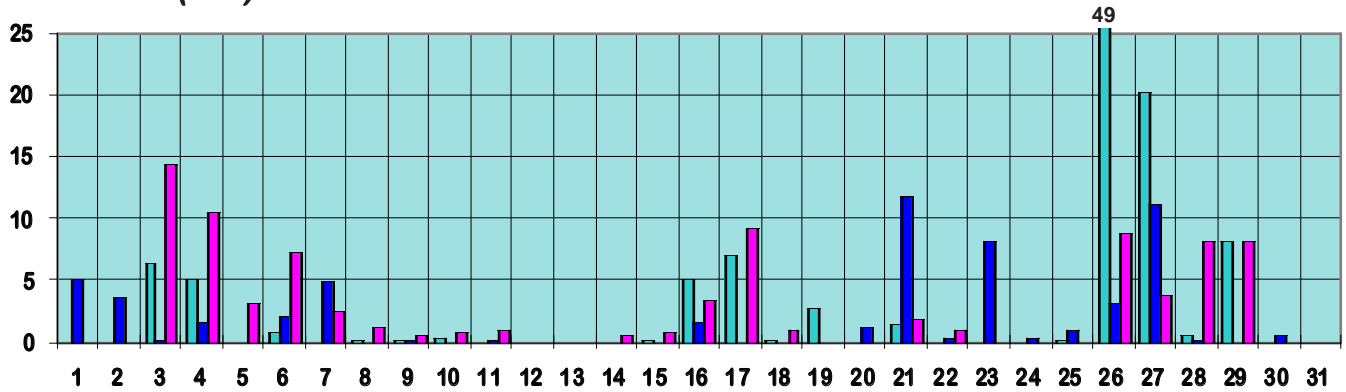
Wind and elements: Winds were relatively light for most of the month, and mean windspeeds of between 5 and 12 knots (*9 and 22km/h*) were below normal everywhere; the month's highest gust of 51 knots (*94km/h*) was recorded at Malin Head on the 17th. Hail and snow were frequent in the periods 1st to 8th and 16th to 26th, while most thunderstorms were recorded near eastern and southern coasts between the 19th and 23rd.

Extreme values at synoptic stations

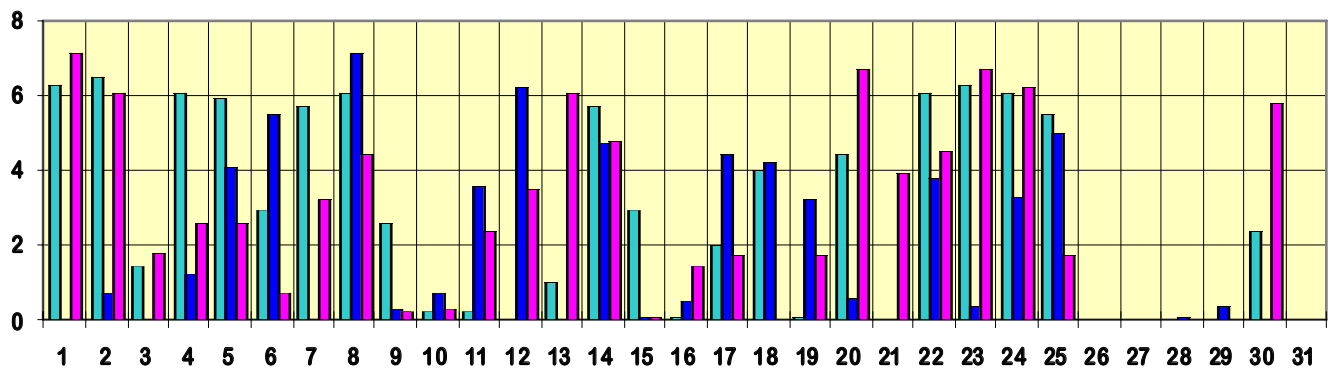
Rainfall	Highest total: 108mm at Valentia Observatory Lowest total: 25mm at Gurteen Highest daily rainfall: 49.2mm at Valentia Observatory on 26th
Temperature	Highest mean monthly temperature: 3.8°C at Malin Head (<i>its coldest December since 1981</i>) Lowest mean monthly temperature: -1.4°C at Ballyhaise (<i>the lowest mean monthly value on record in the country</i>) Highest temperature: 12.9°C at Shannon Airport on 28th Lowest air temperature: -15.7°C at Casement Aerodrome on 25th (<i>its lowest such value since temperature records began there in 1958</i>) Lowest grass minimum temperature: -17.3°C at Gurteen on 21st (<i>the lowest such value for December in the country since 1961</i>)
Sunshine	Highest monthly total: 91 hours at Valentia Observatory (<i>its sunniest December since records began there in 1892</i>) Lowest monthly total: 38 hours at Casement Aerodrome Highest daily sunshine: 7.5 hours at Cork Airport on 8th (<i>its highest daily value for December since 1997</i>)

December 2010 Daily values at selected synoptic stations

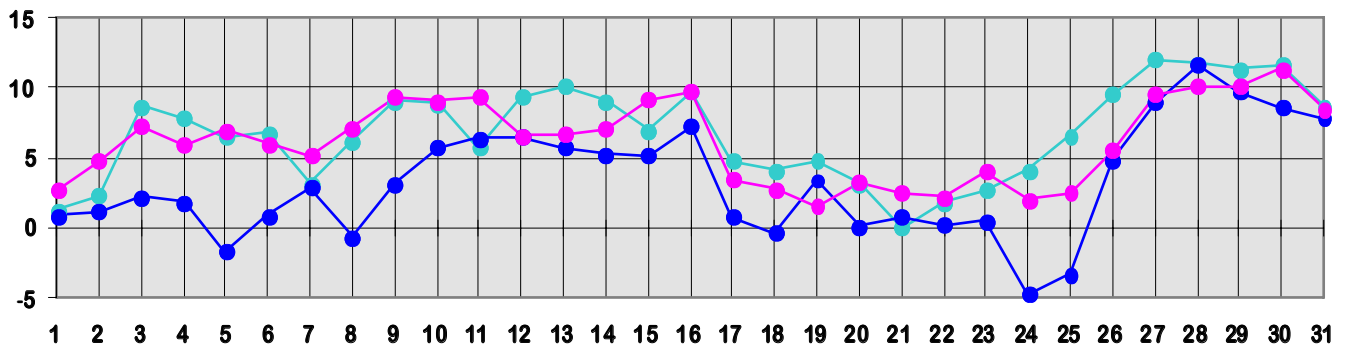
Rainfall (mm)



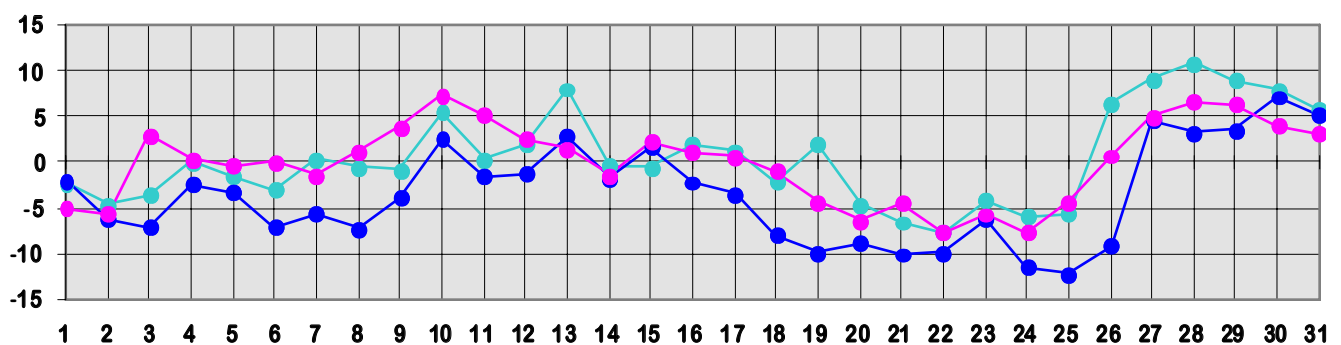
Sunshine (hours)



Maximum temperature (°C)



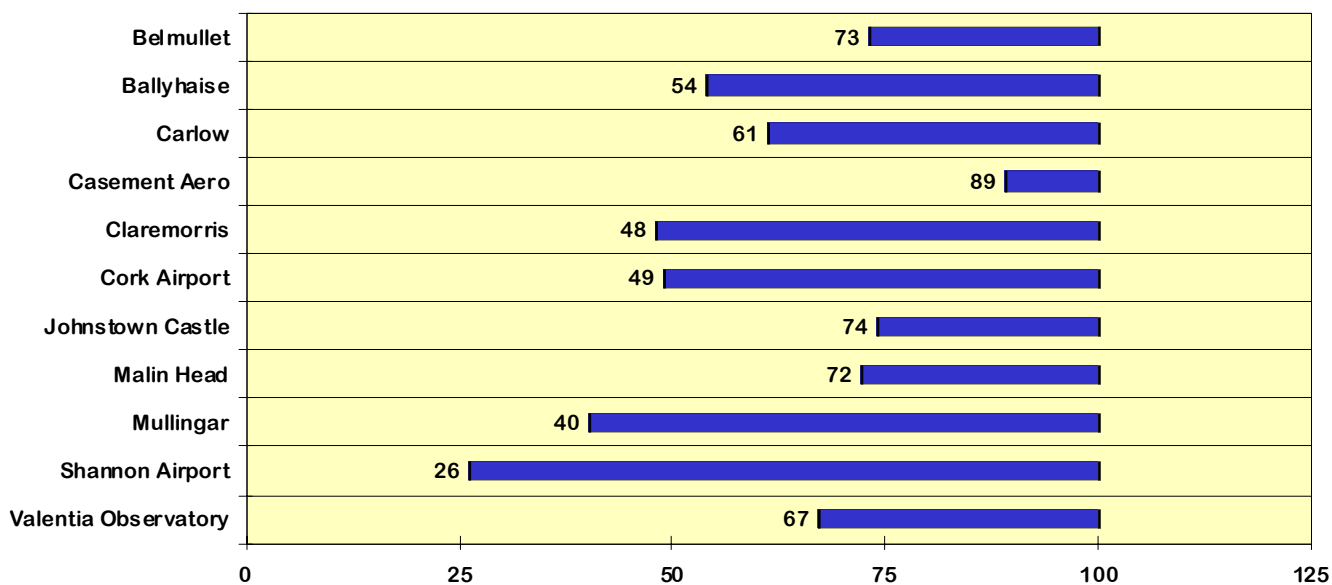
Minimum temperature (°C)



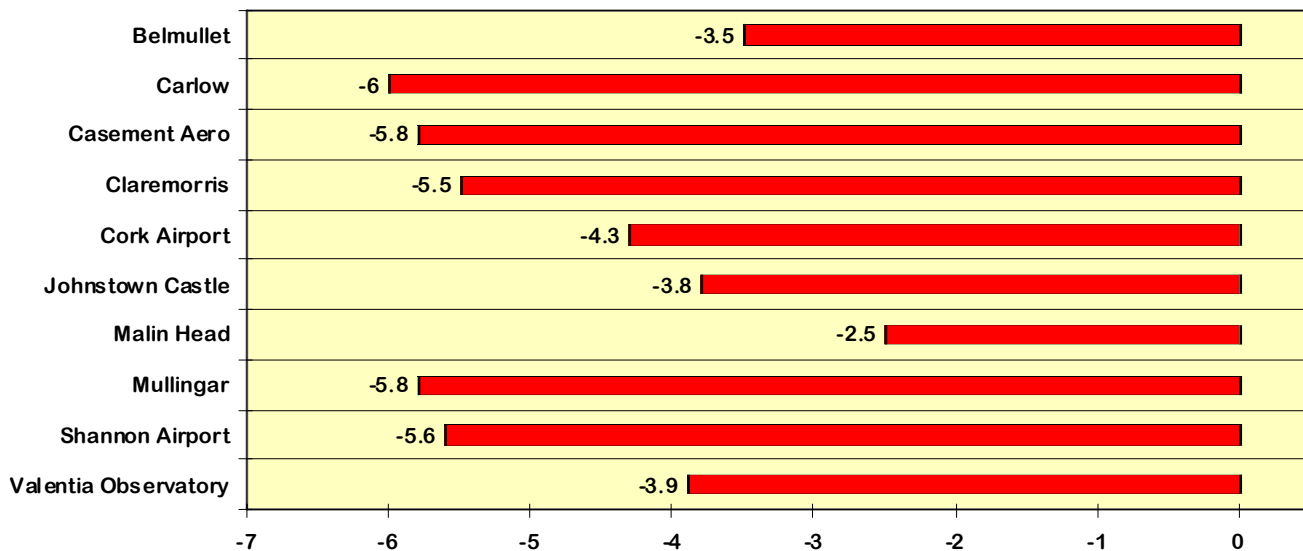
● Valentia Observatory
 ● Dublin Airport
 ● Belmullet

December 2010 Percentage / Difference from 1961-90 monthly normals

Rainfall (% of normal for period 1961-1990)



Temperature (°C difference from normal for period 1961-1990)



Sunshine (% of normal for period 1961-1990)

