



# Monthly Weather Summary

## The Weather of December 2008

### **Cold for most of month; drier and sunnier than normal everywhere**

Apart from a week of mild weather after mid-month, December was a cold month over most of the country. Some rain fell on many days, with sleet or snow in places, but very little rain was recorded from the 23rd onwards and monthly rainfall totals were below normal everywhere. Although a little higher than normal near Atlantic coasts, mean air temperatures for the month were below normal generally and were more than a degree below normal in the Dublin area. It was the coldest December for between seven and 12 years generally and the coldest since 1981 at Casement Aerodrome. Ground frost was severe in places at the beginning and end of the month, with the lowest December ground temperatures at many stations for between five and 27 years in the period 27th to 29th. There was a total of between 18 and 25 ground frosts during the month at inland stations, compared with the normal range for December in these areas of between 13 and 17. Some heavy rainfall was recorded in the period 2nd to 4th and particularly on the 12th, but amounts at other times were generally small. Most stations recorded between 60% and 85% of their normal December rainfall, while Cork Airport's total of 60mm was its lowest for December since 1996. Between eight and 12 wetdays were recorded during the month in the east and south (days with 1mm or more rainfall), with between 13 and 19 wetdays in other areas, below normal for December in all cases. Sunshine totals were above normal everywhere and were well above normal in the north. Both Birr and Belmullet recorded their sunniest December days in over 50 years of record, with daily values of 6.9 hours on the 1st and 7.0 hours on the 28th, respectively.

**1st to 15th:** Frontal systems over Ireland on most days during this period brought spells of rain or showers, heaviest in the period 2nd to 4th and on the 12th; falls were heaviest in western areas. Some sleet or snow fell early in the month, with more widespread wintry showers on the 13th and 14th. Northwest to northerly winds were strong at times, keeping temperatures close to or below normal. Frost was widespread on nights with slacker winds.

**16th to 21st:** A south to southwesterly airstream over Ireland brought much milder conditions. Cloudy, damp weather prevailed throughout the period, with outbreaks of rain or drizzle at times. No air frost was recorded. Strong to gale force winds were recorded on the 19th as a deep depression passed to the north of the country.

**22nd to 31st:** A large anticyclone to the southeast of Ireland moved slowly northwards during the period. Apart from some light rain near the southwest coast late in the month, the weather was dry throughout. Light southerly winds at first brought relatively mild conditions, but colder weather developed as winds turned to a more easterly direction. Clear skies between the 27th and 29th allowed temperatures to fall well below normal at night.

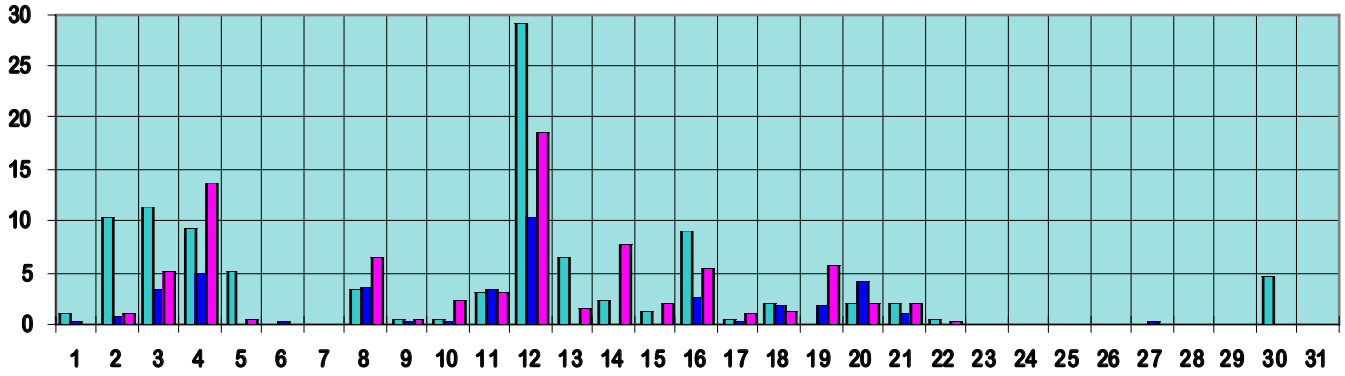
**Wind and elements:** Mean windspeeds for the month of between 6 and 12 knots generally (*11 and 22km/h*) were near or below normal for December. The month's strongest winds were on the 19th, when the highest gust of 72 knots (*133km/h*) was measured at Malin Head. Thunder was recorded only on the 4th, but there were hail showers at times in the periods 1st to 5th and 13th to 19th. Sleet or snow was recorded between the 1st and 3rd and more widely on the 13th and 14th. Fog was most widespread in the periods 6th to 7th and 10th to 11th.

### **Extreme values**

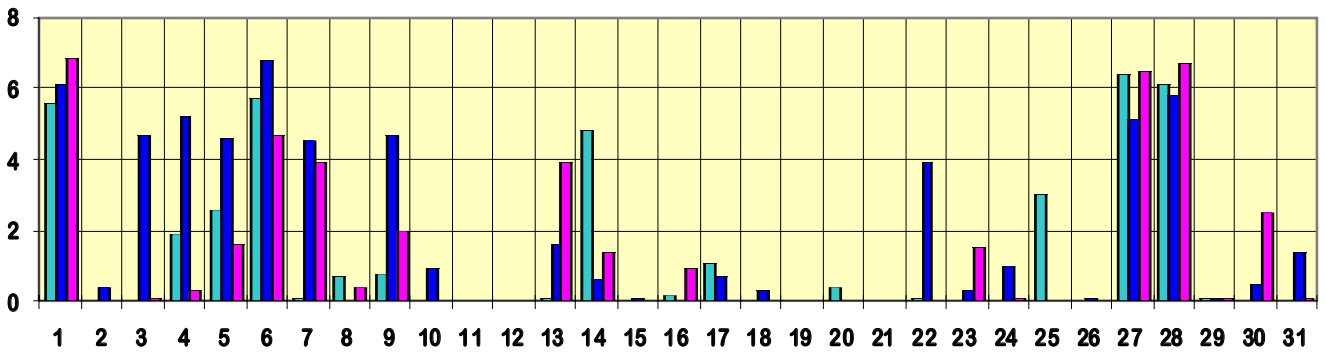
<b>Rainfall</b>	Highest total: 105mm at Valentia Observatory ( <i>its driest December since 2001</i> ) Lowest total: 39mm at Dublin Airport ( <i>its driest December since 2001</i> ) Highest daily rainfall: 29.1mm at Valentia Observatory on 12th
<b>Temperature</b>	Highest mean monthly temperature: 8.0°C at Valentia Observatory Lowest mean monthly temperature: 3.8°C at Ballyhaise Highest temperature: 13.3°C at Valentia Observatory on 18th Lowest air temperature: -5.3°C at Mullingar on 7th Lowest grass minimum temperature: -10.7°C at both Birr and Casement Aerodrome on 27th ( <i>Casement Aerodrome's lowest such value for December since 1981</i> )
<b>Sunshine</b>	Highest monthly total: 59 hours at Dublin Airport Lowest monthly total: 39 hours at Knock Airport Highest daily sunshine: 7.3 hours at Cork Airport on 27th

# December 2008 Daily values at selected synoptic stations

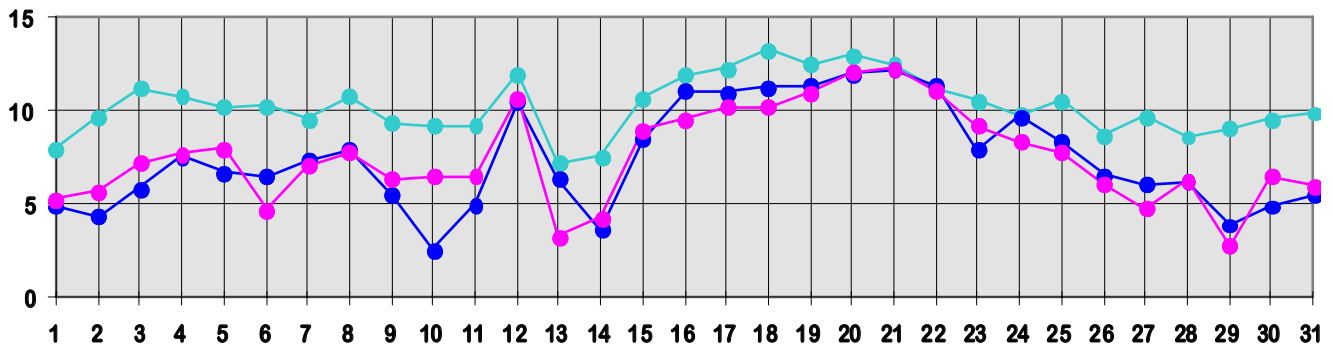
## Rainfall (mm)



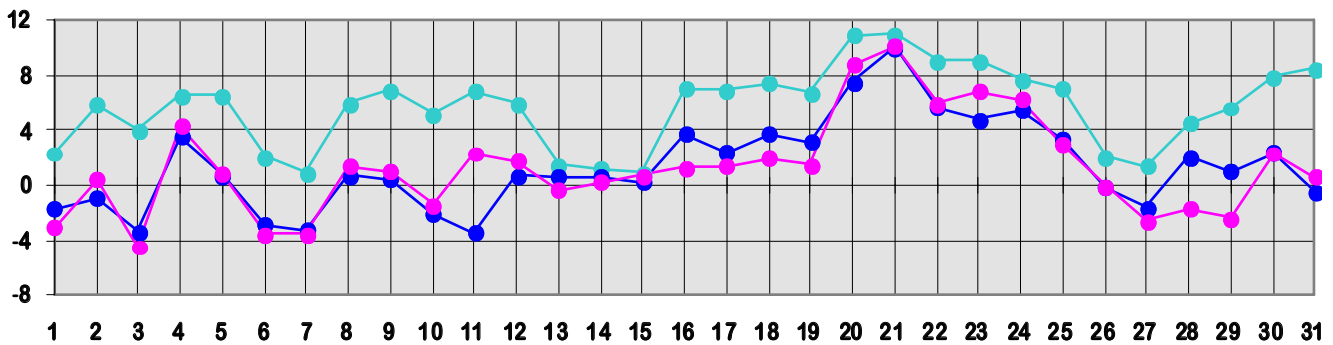
## Sunshine (hours)



## Maximum temperature (°C)



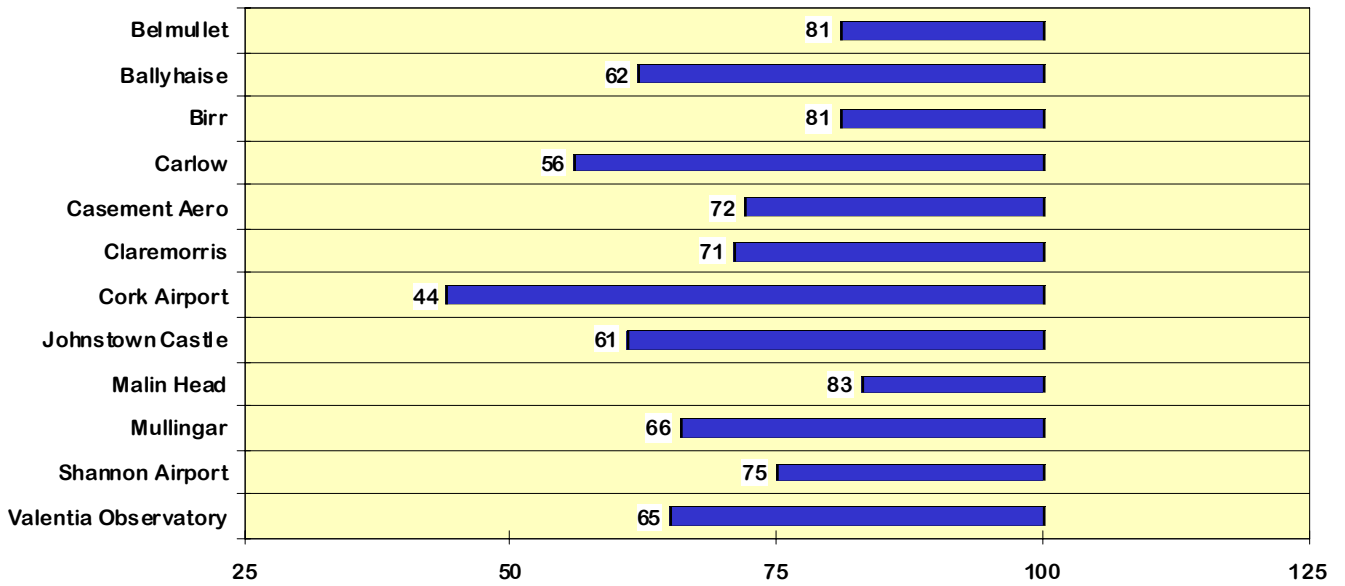
## Minimum temperature (°C)



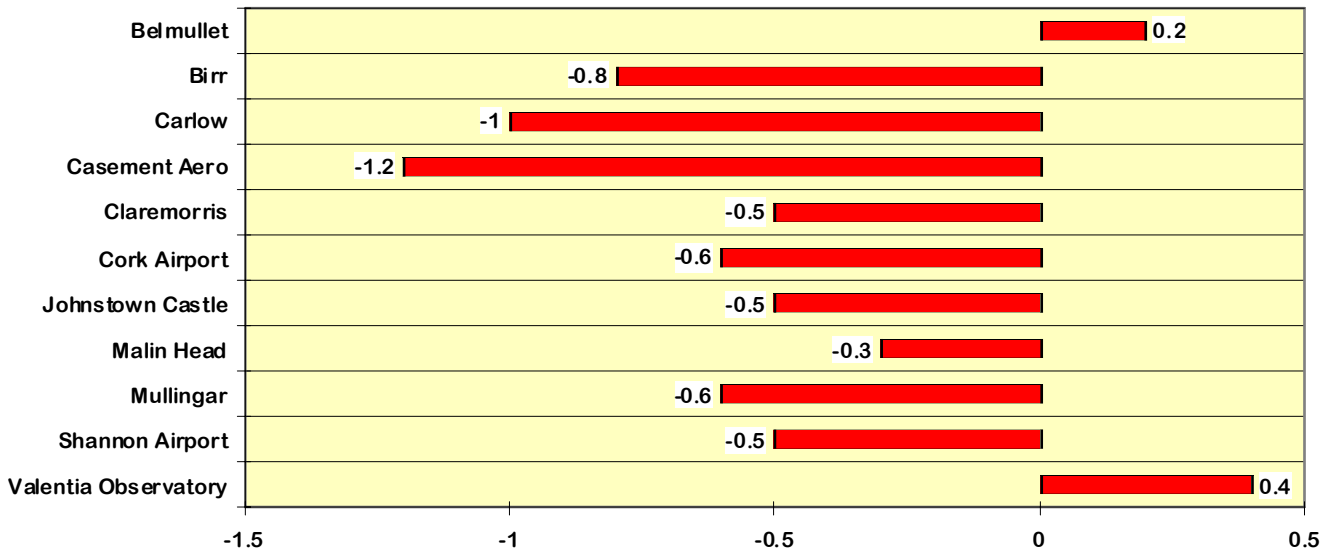
● Valentia Observatory      ● Dublin Airport      ● Birr

December 2008 Percentage / Difference from 1961-90 monthly normals

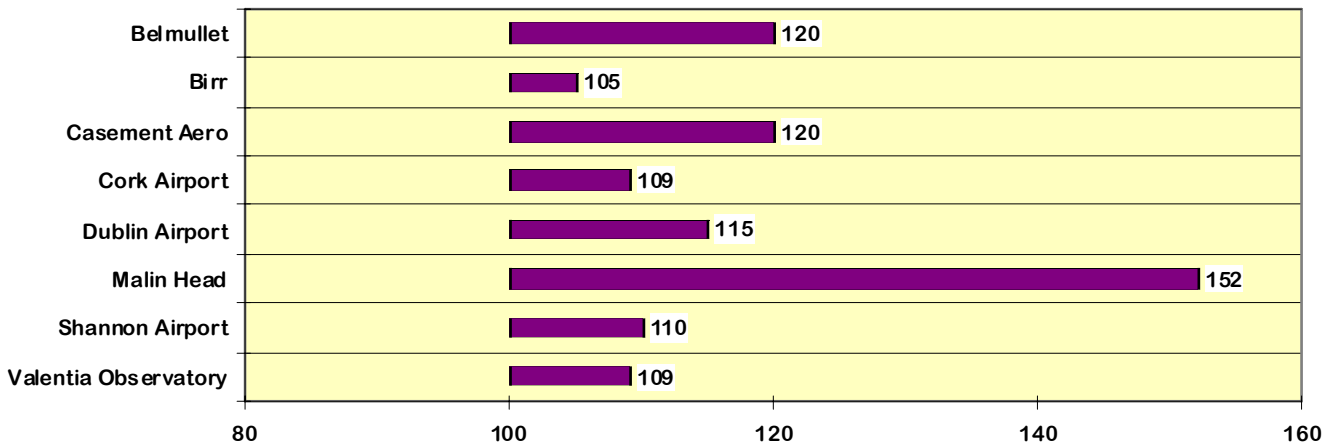
**Rainfall** (% of normal for period 1961-1990)



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



**Sunshine** (% of normal for period 1961-1990)



# The Weather of 2008

## ***Wetter than normal everywhere; wettest on record at Shannon Airport***

Annual rainfall totals were above normal everywhere and it was the wettest year for between six and 22 years generally, while Shannon Airport's total of 1270mm was the highest at the station since it opened in 1945. The distribution of rainfall over the year was very uneven; after a relatively dry spring, there followed a spell of very wet weather between late May and mid-September. The summer period of June, July and August was exceptionally wet for the second year running and it was the wettest summer at Dublin Airport for 50 years. The summer also brought the heaviest daily falls, leading to flooding in many parts of the country. Shannon Airport measured its highest-ever hourly fall when 38mm was recorded during a thunderstorm on August 6th, while the year's highest daily value of 102mm was measured at Belderrig, Co. Mayo, on August 13th. January and October were also exceptionally wet months in the west of the country. The annual number of wetdays (days with 1mm or more rainfall) was also above normal everywhere, by between 10% and 20% generally; there were between 140 wetdays at Casement Aerodrome and 234 at Knock Airport.

Mean air temperatures for the year were around half a degree above normal for the 1961-90 period at most stations, but it was nevertheless the coolest year for between six and 14 years generally. The mean temperature for most months was around half a degree higher than normal, but May was the warmest on record at most stations, with mean temperatures over three degrees above normal in western areas. Mean temperatures were below normal generally in October and December, while they were around normal in June and September. The highest temperatures of the year were recorded during the last week of July in most places, but Birr's maximum was recorded as early as May 12th. Most stations measured their lowest air temperatures on January 4th, but there were also some very low values recorded during mid-February and late December. The total number of air frosts during the year of between 32 and 46 at inland stations was a little lower than normal generally.

Annual sunshine totals were close to normal everywhere. The sunniest months relative to normal were February, April, May, June, October and December, while January, July and August were dull; percentage of normal sunshine values for August were only around 60% in places, making it the dullest on record in places. Most stations measured their sunniest day of the year during May.

Mean windspeeds for the year of between 7 and 12 knots generally (*13 and 22km/h*) were above normal everywhere, the highest annual values for between 6 and 9 years. Malin Head recorded the highest gust of the year, 91 knots (*168km/h*) on January 9th, the highest gust at any station since December 1998.

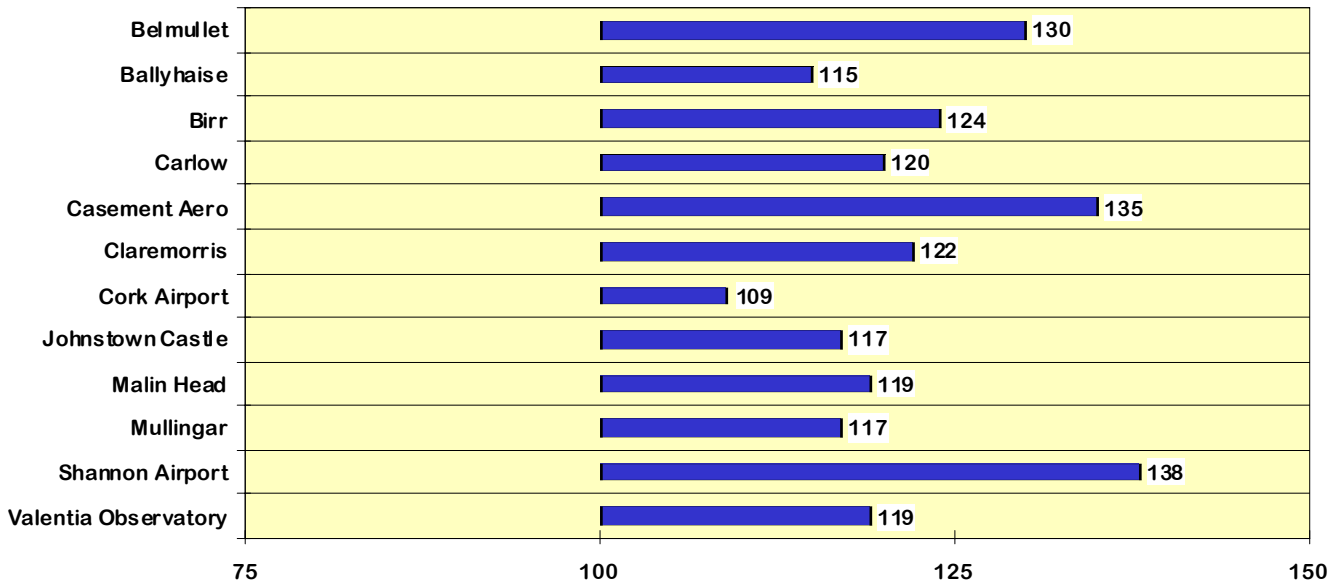
According to provisional figures released by the World Meteorological Organisation, the global mean temperature for 2008 is estimated at 0.31°C above the 1961-1990 annual average of 14.0°C, making this the tenth warmest year since the beginning of the instrumental climate record in 1850. The ten warmest years on record globally have all been observed since 1995.

### **Extreme values**

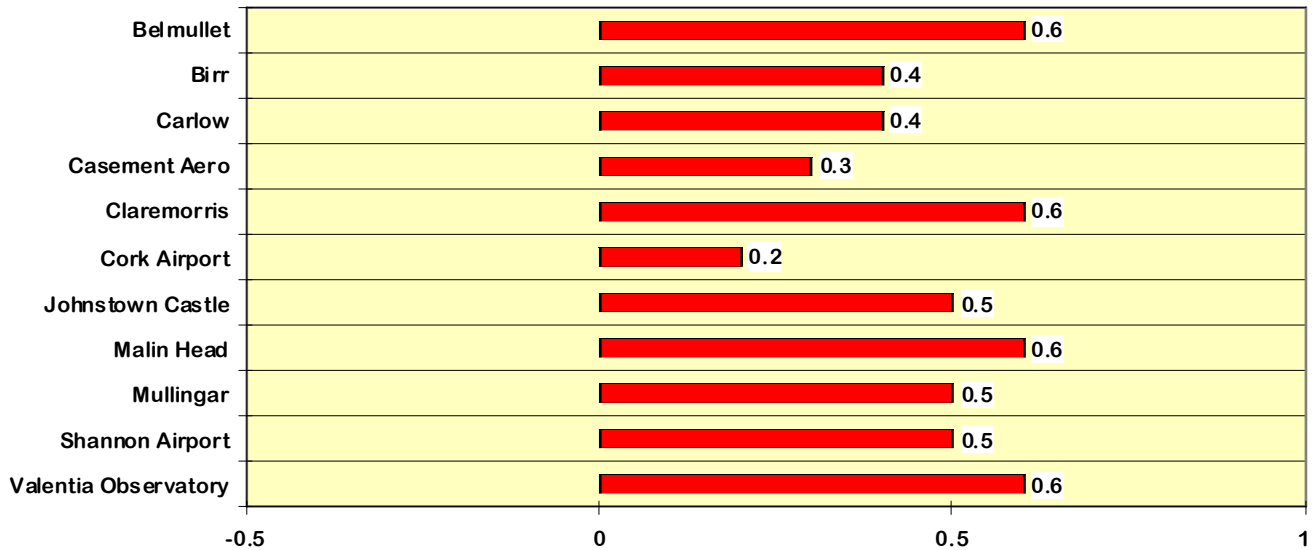
<b>Rainfall</b>	Highest annual total: 1673mm at Valentia Observatory Lowest annual total: 944mm at Dublin Airport ( <i>its wettest year since 2002</i> ) Highest daily rainfall: 102mm at Belderrig, Co. Mayo, on August 13th
<b>Temperature</b>	Highest mean annual temperature: 11.1°C at Valentia Observatory Lowest mean annual temperature: 8.7°C at Knock Airport ( <i>its coolest year since 2001</i> ) Highest temperature: 25.2°C at Shannon Airport on July 24th Lowest air temperature: -7.7°C at Casement Aerodrome on February 19th ( <i>its lowest value since March 2001</i> ) Lowest grass minimum temperature: -12.8°C at Birr on February 17th and 18th
<b>Sunshine</b>	Highest annual total: 1512 hours at Dublin Airport Lowest annual total: 1249 hours at Birr Highest daily sunshine: 15.3 hours at Malin Head on May 26th

# Year 2008 Percentage / Difference from 1961-90 monthly normals

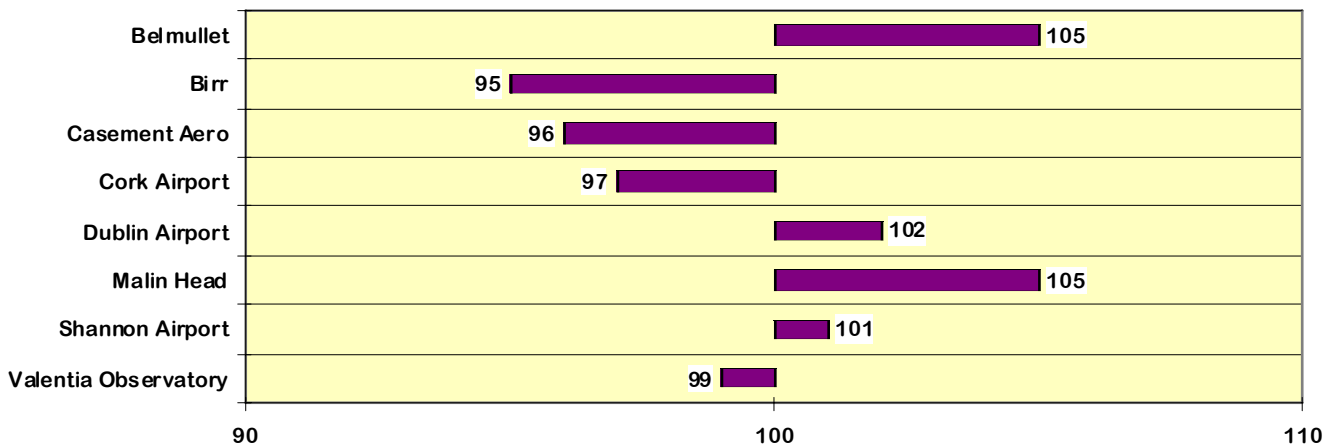
## Rainfall (% of normal for period 1961-1990)



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



## Sunshine (% of normal for period 1961-1990)



Issued by the Climatology and Observations Division of Met Éireann on January 2nd 2009

This report is based on preliminary data from the synoptic weather stations operated by Met Éireann

A detailed summary is available in the **Monthly Weather Bulletin**

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