

# MONTHLY WEATHER BULLETIN

NO. 311  
MARCH 2012



A foggy morning in the grounds of Malahide Castle during mid-March as radiation fog developed overnight. This type of fog develops on nights where there is a clear night sky, light winds and with an air mass that is humid at low levels (Picture courtesy Roisin Nugent)

## DRY, WARM AND SUNNY EVERYWHERE

Mean temperatures for March were above average, with departures from average ranging up to +2.7°C. Mean air temperatures recorded at some stations in the Northwest, Midlands and East were the warmest in around 50 years, with other stations across the country reporting their highest means in five to 44 years. All highest maximum air temperatures were recorded in the

warm weather during last week of the month, with the maximum temperatures of 22.2°C at Belmullet and 18.8 °C at Cork Airport, the highest recorded at the stations during March since 1957(55 years) and 1962 (50 years), respectively. The month's highest temperature was 22.6°C recorded at Glenties Hatchery, Co. Donegal, its highest March maximum since 1961



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Special Feature



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(51 years). Lowest March minimum temperatures were recorded mainly on the 4th, 5th and mid-month and were the highest in five to 20 years in most parts except for some stations in the North and Southeast. Rainfall totals were relatively low for the time of year, with percentage of average values below 50% nearly everywhere except in isolated areas of Galway, Mayo and Sligo.

Mullingar reported its driest March since 1961 (61 years) with 15.4 mm, Mt. Inchigleelagh (Pipe Hill) measured 38.0 mm and broke one of the longest records with its driest March since 1949 (63 years). The highest amount of rainfall in a day was at Kylemore Abbey, Co. Galway with 38.0 mm on the 6th. Sunshine totals for the month were above average everywhere, but it was still the dullest March since 2006 (6 years) at Shannon Airport. In contrast, Casement Aerodrome reported its sunniest March since 2003 (8 years). The sunniest days of the month were mainly between the 26th and 28th, where durations of around 11 hours were recorded everywhere. Valentia Observatory and Shannon Airport reported 11.2 hours and 11.4 hours of sunshine, their highest March daily sunshine since 1944 (68 years) and 1965 (47 years), respectively.

**1st to 6th:** High pressure dominated bringing a dry, clear, sunny to start to the month, followed by bands of rain and heavy showers in places, occasionally with hail and snow. A few nights with clear skies lead to air frost in some places. Winds were mainly breezy and variable in direction, with gales reported in the West and gale gusts reported along Atlantic coasts.

**7th to 16th:** A deep depression located North of Iceland and its associated frontal systems brought mostly cloudy conditions in places with rain, drizzle

and scattered heavy showers, some with hail and snow. It became drier thereafter with some clear, sunny spells with a few patches of drizzle, mist and fog. Winds were mainly strong and gusty at the start, becoming moderate then light towards the end of the period.

**17th to 21st:** Widespread heavy showers with occasional hail and thunder on the 17th/18th. Isolated periods of light rain and showers thereafter, but it was mainly dry and mild, with clear spells and ground frost in some places. Winds were light to moderate, mainly southwesterly in direction, with gale gusts along northern and western Atlantic coasts.

**20th to 30th:** Cloudy periods, with some light showers in parts, before high pressure brought dry clear weather with prolonged sunshine and high temperatures. Clear skies at night brought fog and frost in places. Winds were mainly light to moderate, southeasterly to southerly in direction.

**Wind and elements:** Mean windspeeds for the month were between 6 and 14 knots (11 and 26km/h) with gale gusts reported in the first week everywhere and along Atlantic coasts during the period 19th to the 24th. Belmullet reported the month's highest gust of 51 knots (94km/h) on the 6th and the only gale report on the 3rd. Thunderstorms were reported on the 17th, with hail reports on the 3rd, 4th, 7th and 18th and snow in the west on the 4th and 7th. Fog was reported on numerous days, mainly the west, southwest and south. Number of days with ground frost ranged from one at a few stations in Co. Cork to 18 at Ashford (Cronykeery), Co. Wicklow. Number of days with air frost were above five in parts of the Midlands.

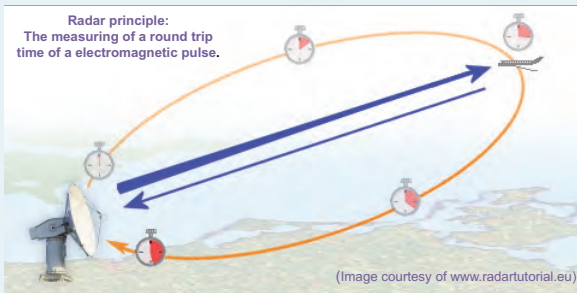


*A mother and child play along Portmarnock beach, Co. Dublin during the bright, sunny period at the end of the month, which saw daily sunshine hours soar above 11 hours in most parts of the country. This sunshine was unusually high for March, with records for Casement Aerodrome and Dublin Airport reporting it as the highest daily sunshine for the time of year since 1964 and 1985, respectively. (Picture courtesy Gerry Dunne)*

# WEATHER RADAR

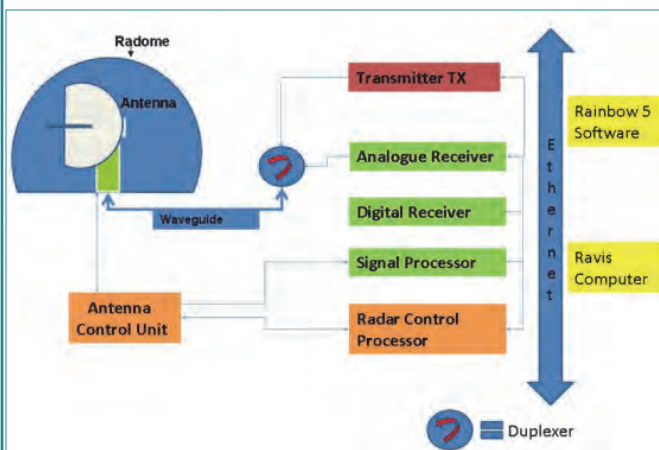
## HOW DOES WEATHER RADAR WORK?

Radar is an acronym for **R**adio **D**etection **a**nd **R**anging. It can be used to locate precipitation and calculate its motion and intensity. Most radars transmit a high energy pulse of electromagnetic radiation. As each pulse travels through the atmosphere any interference such as precipitation causes the pulse to be reflected back. By measuring the time it takes the electromagnetic radiation to leave the antenna, be reflected and returned, the radar can calculate the location and height of the rain, hail or snow.



Radar constantly rotates a full 360° at various elevations, to give a complete picture. A computer within the radar calculates the energy waves that are returned and produces a colour coded image, representing the amount of precipitation present in the atmosphere. If no energy waves bounce back, the radar's computer assumes that there is no rain, hail or snow, and produces a clear image. Accuracy varies with the type of precipitation and the distance from the radar. Beyond 100km from the radar site accuracy falls off dramatically.

## HOW IT WORKS- IRELANDS WEATHER RADAR



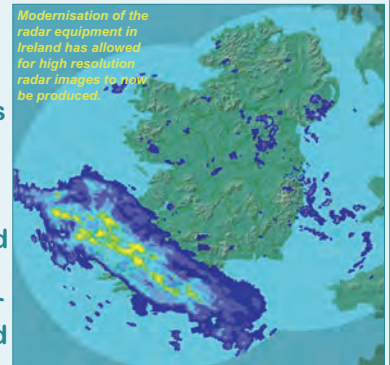
- Radome:** Protects the antenna and positioner from the weather.
- Transmitter:** Generates the electromagnetic signal of the correct phase and amplitude. Produces short duration, high powered radio frequency pulses of energy. These are transmitted through the waveguide and into the atmosphere by the antenna.
- Receiver System:** Amplifies and extracts the signals returned from particles of air and establishes the distance away and intensity of precipitation.
- Duplexer:** Switches the antenna between the transmitter and receiver, allowing one antenna to both transmit and receive signals.
- Radar/Antenna Control Units and Ravis PC:** Controls the movement of the azimuth and elevation of the antenna.
- Rainbow 5 Software:** Schedules the radar, analyses the data and puts it in graphic form for the end user.

## HISTORY OF WEATHER RADAR

The development of weather radar was an accumulation of various bodies of work. In 1865, Scottish physicist James Clerk Maxwell presented his 'Theory of the Electromagnetic Field' which demonstrated that electric and magnetic fields travelled through space in the form of waves, at the constant speed of light. Using Maxwells theory, german engineer Christain Hulsmeyer completed the first practical radar test, with a 'telemobiloscope', in 1904, a transmitter-receiver system developed for detecting distant metallic objects (ships) by means of electrical waves. By the 1940's significant developments in Radar had been made, with different Radar systems being developed in the USA, Russia, France and Japan.



Weather radar was introduced into Ireland in the 1960's with two radars in the Republic of Ireland, at Dublin and Shannon Airports. In 2009, an upgrade was required to the systems as newer modern radars processing capabilities were far greater than the radars in use and replacement parts were increasingly hard to find. The upgrade of Shannon Airport radar system was completed in August 2010, with Dublin Airport's following in June 2011. Both systems were upgraded with a new receiver system, signal processor, positioner and control system, with only the antenna, radome and waveguide surviving from the original Radar.



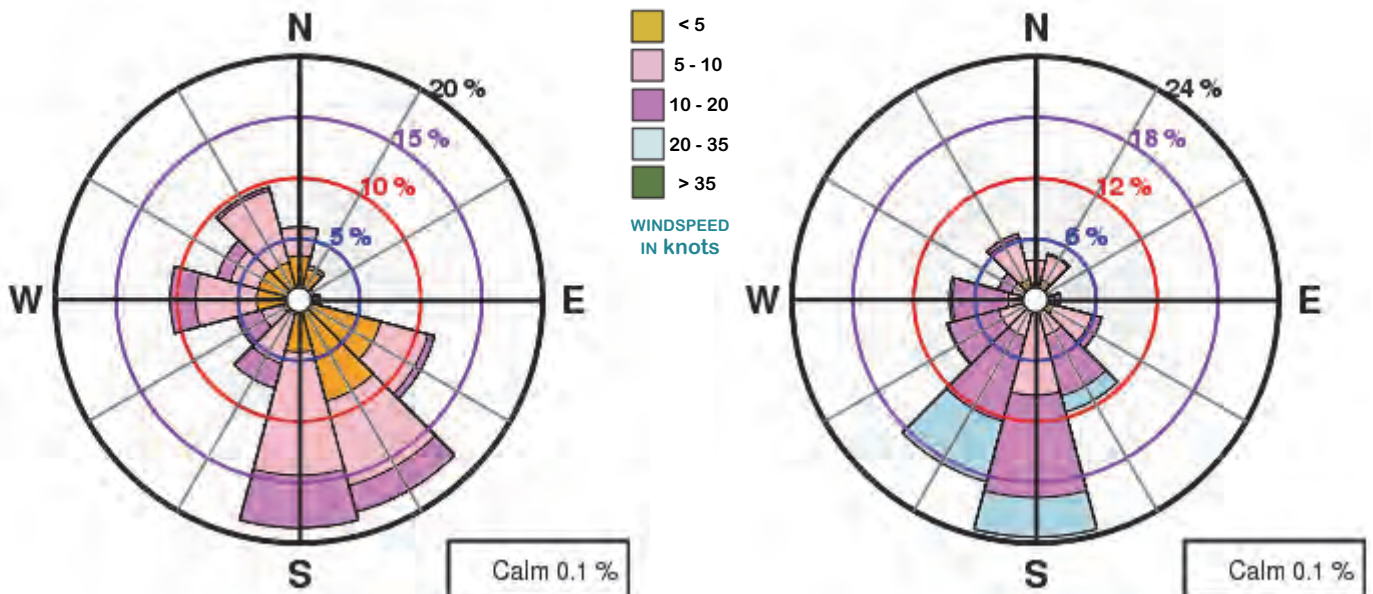
Today, weather radar runs 24/7/365. Data from the two radars are combined to create an Ireland composite image. Images are created every fifteen minutes with colour coding to indicate rainfall intensities. Weather radar data can be used for computing total rainfall accumulations over large areas such as river basins, with potential for such data to be used for flood prediction, water supply and irrigation management.

Information on Ireland's Radar supplied by Morgan Geraghty, Met Éireann.

COUNTY / STATION	WIND (knots)						ELEMENTS (no.of days)							
	MEAN SPEED	MAX. DIR.	10-MIN. SPEED	MEAN DATE/HOUR	MAX. DIR.	GUST SPEED DATE/TIME	DAYS WITH GALES	GALE GUSTS	HOURS WITH GALE GUSTS	SNOW	SNOW LYING	HAIL	THUNDER	FOG
<b>CO. CARLOW</b> OAK PARK	6.4	280°	22	7/11	300°	36 7/1230	0	1	2					
<b>CO. CAVAN</b> BALLYHAISE	6.6	210°	18	6/22	310°	45 7/1253	0	1	2					
		310°	18	7/12										
<b>CO. CLARE</b> SHANNON AIRPORT	8.0	280°	30	7/13	290°	44 7/0658	0	2	11	0	0	2	0	1
<b>CO. CORK</b> ROCHE'S POINT	10.4	290°	35	7/15	300°	50 7/1519	1	3	13					
CORK AIRPORT	8.6	280°	26	7/13	180°	41 3/0028	0	3	5	0	0	2	0	7
<b>CO. DONEGAL</b> MALIN HEAD	13.8	200°	36	3/11	260°	50 7/1909	2	9	66					
<b>CO. DUBLIN</b> DUBLIN AIRPORT	9.3	280°	26	7/14	300°	37 7/1042	0	1	4	0	0	1	0	2
CASEMENT	8.5	270°	29	7/14	210°	39 6/2350	0	2	11	0	0	0	1	0
					260°	39 7/0359								
<b>CO. KERRY</b> VALENTIA OBSERVATORY	8.2	220°	28	3/02	220°	44 3/0103	0	5	23					
<b>CO. MAYO</b> BELMULLET	11.8	180°	34	3/07	240°	51 6/2255	1	7	91	2	0	4	0	1
KNOCK AIRPORT	9.6	290°	27	7/14	290°	45 7/1442	0	3	16	1	0			3
<b>CO. MEATH</b> DUNSANY	7.1	240°	23	7/03	260°	36 7/1602	0	1	1					
<b>CO. TIPPERARY</b> GURTEEN (AG. COLLEGE)	7.7	270°	25	7/14	290°	39 7/1309	0	1	2					
<b>CO. WESTMEATH</b> MULLINGAR	5.9	280°	17	7/13	270°	33 7/1333	0	0	0					
<b>CO. WEXFORD</b> JOHNSTOWN CASTLE	7.4	290°	23	7/12	220°	34 7/1103	0	1	2					

CARLOW (OAK PARK)

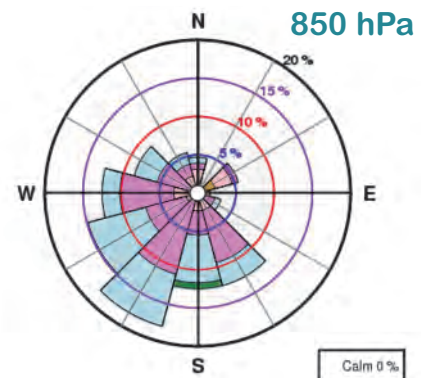
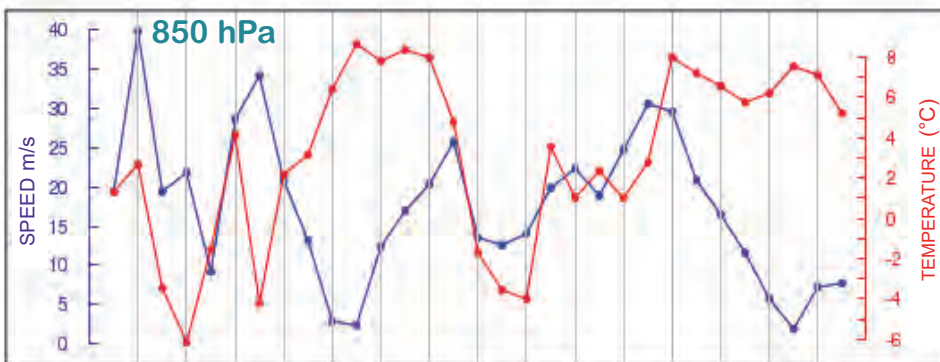
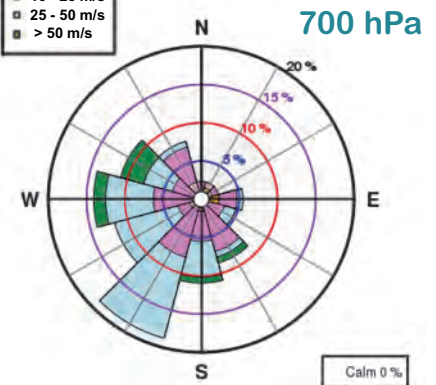
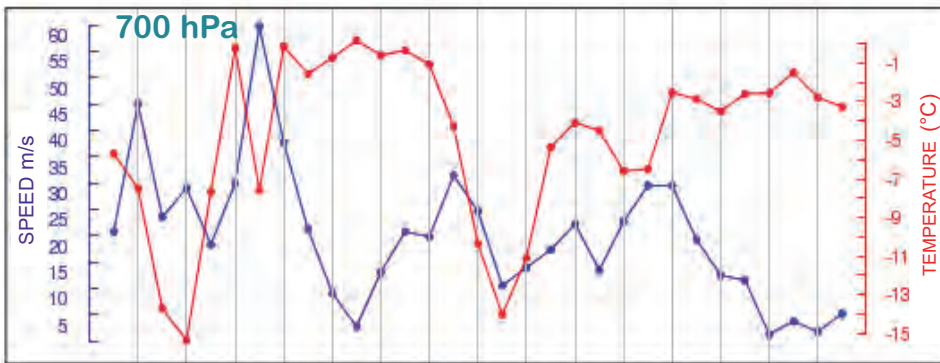
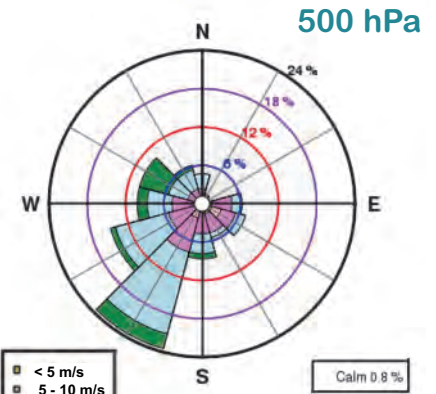
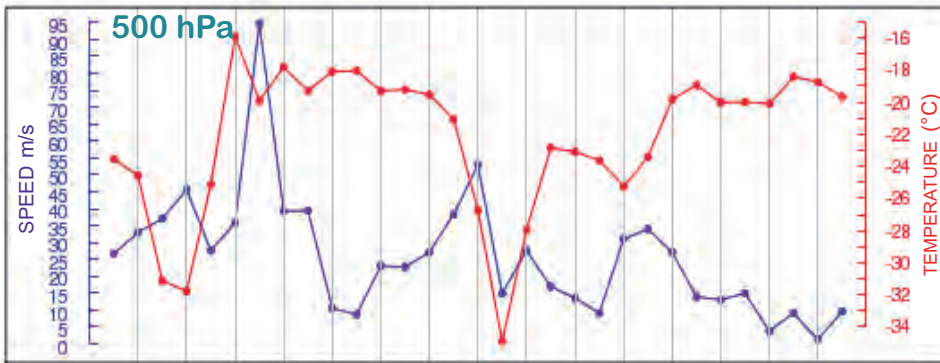
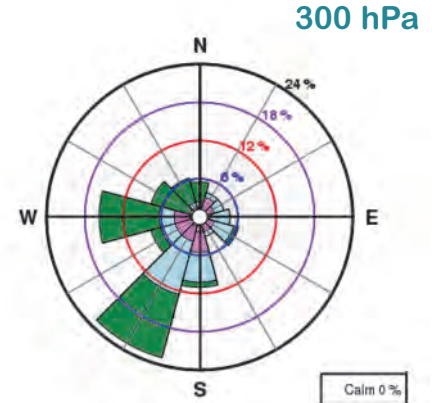
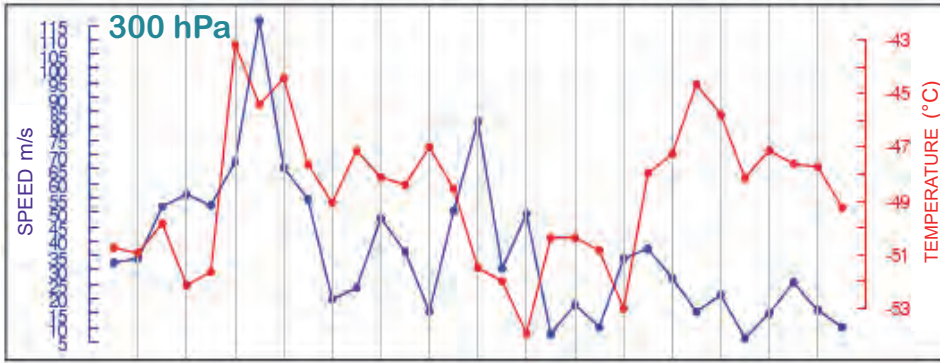
BELMULLET



PERCENTAGE FREQUENCY OF WIND DIRECTION

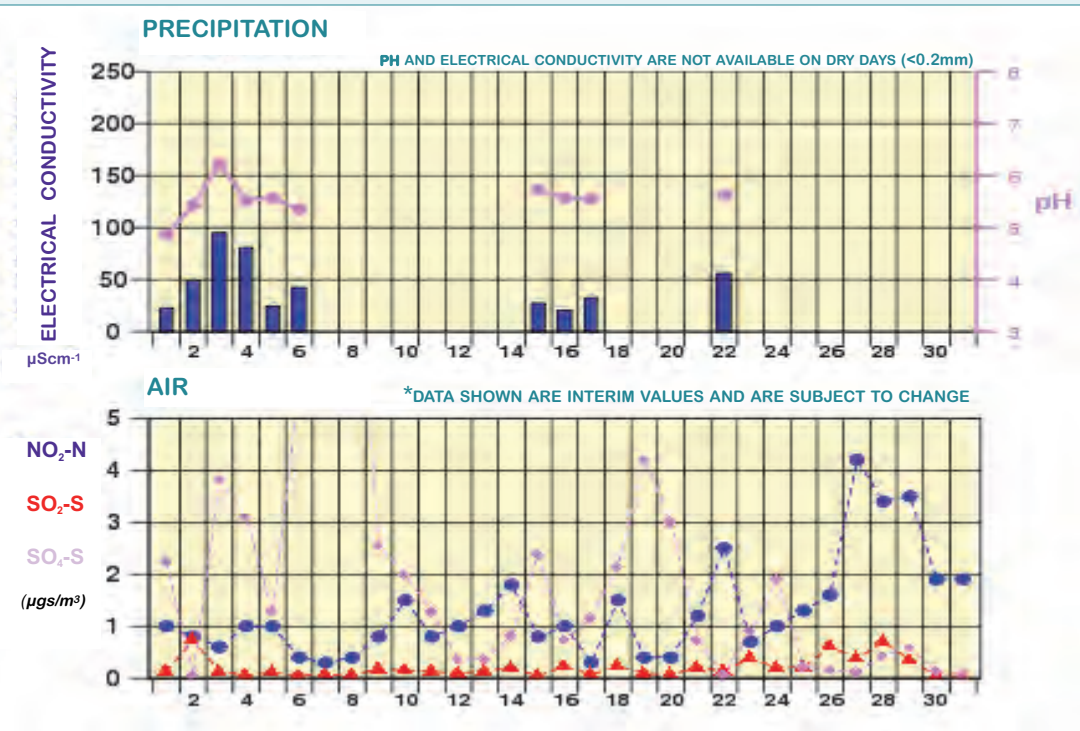
Upper Atmosphere wind and temperature readings are made at Valentia Observatory four times daily by a radiosonde (a balloon with instruments attached). Shown below are daily average windspeeds and temperatures at defined pressure levels, 850, 700, 500 and 300 hPa, corresponding approximately to heights of 1,500, 3,000, 6,000 and 10,000 metres. Monthly windroses are also shown for each pressure level.

UPPER AIR WIND SPEED AND TEMPERATURE MARCH 2012



DAY OF MONTH

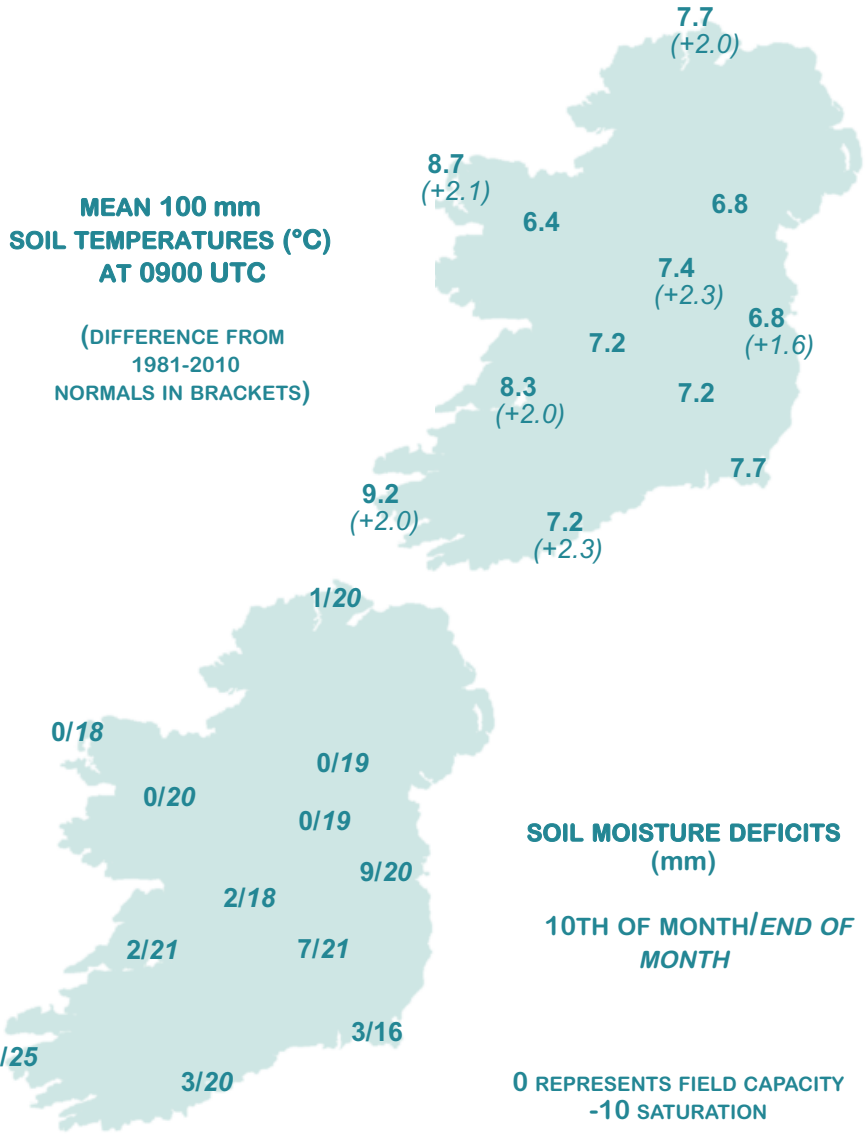
CHEMICAL ANALYSIS OF PRECIPITATION AND AIR SAMPLES AT VALENTIA OBSERVATORY



Acid rain occurs when pollutants combine with moisture in the air to form sulphuric or nitric acid. pH is the simplest way of measuring the acidity of precipitation. Usually pH of 7.00 is considered neutral but this is not the case in rainfall samples. Pure water in the atmosphere has an equilibrium pH value of 5.65 at 20°C owing to carbon dioxide in the air dissolving to form carbonic acid. Any value below pH 5.65 is considered acid while any value above is considered alkaline.

Sulphur dioxide and sulphate in air contribute to the formation of sulphuric acid; nitrate in air contributes to the formation of nitric acid.

Conductivity measures the total ion activity in the rainfall, i.e. the higher the conductivity the greater the number of ions present.



**MEAN SOIL TEMPERATURES (°C) AT 0900 UTC**

COUNTY/STATION	100 mm	200 mm	300 mm
<b>CO. CARLOW</b>			
CARLOW (OAK PARK)	7.2	7.9	8.2
<b>CO. CAVAN</b>			
BALLYHAISE	6.8	7.8	8.4
<b>CO. CLARE</b>			
SHANNON AIRPORT	8.3	8.6	9.5
CARRON	8.2		9.0
<b>CO. CORK</b>			
ROCHE'S POINT	8.2	8.9	9.1
FERMOY (MOOREPARK)	7.8	8.3	8.9
CORK AIRPORT	7.2	7.9	9.0
SHERKIN ISLAND	9.3	9.8	10.0
BALLINCURRIG (PEAFIELD)	7.3	7.2	8.8
<b>CO. DONEGAL</b>			
MALIN HEAD	7.7	8.4	8.8
<b>CO. DUBLIN</b>			
PHOENIX PARK	7.3	8.4	8.7
DUBLIN AIRPORT	7.1	7.6	8.3
CASEMENT AERODROME	6.8	7.6	8.5
<b>CO. KERRY</b>			
VALENTIA OBSERVATORY	9.2	9.9	10.9
<b>CO. LIMERICK</b>			
MOUNTRUSSELL	7.7	8.4	
<b>CO. MAYO</b>			
BELMULLET	8.7	9.8	10.4
STRAIDE	8.2		
KNOCK AIRPORT	6.4	7.4	8.0
<b>CO. TIPPERARY</b>			
GURTEEN (AG.COLLEGE)	7.2	7.8	8.2
FETHARD (PARSONSHILL)	7.4	8.3	
<b>CO. WATERFORD</b>			
DUNGARVAN (CARRIGLEA)		8.6	9.2
<b>CO. WESTMEATH</b>			
MULLINGAR	7.4	8.3	8.8
<b>CO. WEXFORD</b>			
JOHNSTOWN CASTLE	7.7	7.8	8.3
JOHN F. KENNEDY PARK	8.1	8.9	9.9
CLONROCHE (KNOXTOWN)	8.3	8.9	9.1
<b>CO. WICKLOW</b>			
ASHFORD (CRONYKEERY)	8.0	8.7	9.2

10-DAY VALUES FOR SELECTED AGROMETEOROLOGICAL STATIONS		RAINFALL (mm)				TEMPERATURE (°C)														SUNSHINE (hours)	
STATION	PERIOD	AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFF. FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS > 4.4°C	DEGREE DAYS > 10.0°C	LOWEST *GRASS-MIN. "	DATE	DAYS WITH GROUND FROST	MEAN 10CM AT 0900H	MEAN 30CM AT 0900H	TOTAL NO. OF HOURS	% OF AVERAGE
BALLINCURRIG	11-20	9.1	-	2	2	11.4	4.8	8.1	-	0.0	19	0	39	4	-0.6	19	1	7.4	8.7	18.9	-
	21-END	1.5	-	1	1	14.7	5.7	10.2	-	3.0	28	0	64	17	1.3	28	0	7.8	9.5	67.8	-
	<b>MONTH</b>	<b>20.6</b>	<b>20</b>	<b>7</b>	<b>7</b>	<b>12.7</b>	<b>4.9</b>	<b>8.8</b>	<b>+2.1</b>	<b>-0.3</b>	<b>5</b>	<b>2</b>	<b>145</b>	<b>28</b>	<b>-1.1</b>	<b>5</b>	<b>3</b>	<b>7.3</b>	<b>8.8</b>	<b>129.0</b>	<b>123</b>
<b>CO. DONEGAL</b>	1-10	19.5	-	NA	NA	11.0	4.3	7.7	-	-0.2	4	1	37	4	-2.0	4	4	-	-	-	-
GLENTIES	11-20	15.8	-	6	3	11.5	5.1	8.3	-	-2.4	18	2	43	5	-6.1	18	3	-	-	-	-
	21-END	1.3	-	1	1	16.8	6.3	11.6	-	-0.1	29	1	80	29	-4.0	29	4	-	-	-	-
	<b>MONTH</b>	<b>36.6</b>	<b>28</b>	<b>NA</b>	<b>NA</b>	<b>13.2</b>	<b>5.3</b>	<b>9.3</b>	<b>+2.7</b>	<b>-2.4</b>	<b>18</b>	<b>4</b>	<b>160</b>	<b>38</b>	<b>-6.1</b>	<b>18</b>	<b>11</b>	-	-	-	-
<b>CO. KERRY</b>	1-10	18.7	-	7	4	12.3	5.6	9.0	-	1.0	4	0	47	9	0.0	4	0	-	-	54.4	-
ARDFERT	11-20	12.3	-	4	3	12.5	6.2	9.4	-	3.2	17	0	50	8	2.1	17	0	-	-	29.3	-
	21-END	0.4	-	1	0	16.7	5.7	11.2	-	1.7	22	0	77	28	0.9	22	0	-	-	58.9	-
	<b>MONTH</b>	<b>31.4</b>	<b>34</b>	<b>12</b>	<b>7</b>	<b>13.9</b>	<b>5.9</b>	<b>9.9</b>	<b>+2.1</b>	<b>1.0</b>	<b>4</b>	<b>0</b>	<b>174</b>	<b>44</b>	<b>0.0</b>	<b>4</b>	<b>0</b>	-	-	<b>142.6</b>	<b>135</b>
<b>CO. MONAGHAN</b>	1-10	4.8	-	4	3	11.5	3.1	7.3	-	-1.5	6	2	35	6	-3.9	6	6	-	-	-	-
CARRICKMACROSS	11-20	5.1	-	2	2	11.1	3.7	7.4	-	-1.9	17	4	36	3	-3.8	17	4	-	-	-	-
	21-END	0.8	-	1	0	14.8	4.6	9.7	-	0.0	28	0	62	14	-2.5	28	4	-	-	-	-
	<b>MONTH</b>	<b>10.7</b>	<b>14</b>	<b>7</b>	<b>5</b>	<b>12.5</b>	<b>3.8</b>	<b>8.2</b>	<b>+1.7</b>	<b>-1.9</b>	<b>17</b>	<b>6</b>	<b>132</b>	<b>23</b>	<b>-3.9</b>	<b>6</b>	<b>14</b>	-	-	-	-
<b>CO. WATERFORD</b>	1-10	11.9	-	4	4	12.8	5.3	9.1	-	0.7	6	0	50	11	-1.9	5	4	-	8.8	48.3	-
DUNGARVAN	11-20	10.7	-	3	2	11.9	5.7	8.8	-	-0.2	19	1	46	5	-2.4	19	2	-	9.4	15.8	-
	21-END	0.8	-	1	0	14.6	5.2	9.9	-	0.5	28	0	63	15	-2.1	28	3	-	9.4	64.6	-
	<b>MONTH</b>	<b>23.4</b>	<b>24</b>	<b>8</b>	<b>6</b>	<b>13.1</b>	<b>5.4</b>	<b>9.3</b>	<b>+1.8</b>	<b>-0.2</b>	<b>19</b>	<b>1</b>	<b>159</b>	<b>31</b>	<b>-2.4</b>	<b>19</b>	<b>9</b>	-	<b>9.2</b>	<b>128.7</b>	<b>124</b>
<b>CO. WEXFORD</b>	1-10	10.9	-	3	3	12.0	4.6	8.3	-	-0.2	4	1	43	7	-1.2	4	4	7.1	9.3	47.6	-
J.F.K. PARK	11-20	11.8	-	2	2	10.9	5.4	8.2	-	0.8	19	0	39	3	-1.0	19	1	8.1	9.9	20.2	-
	21-END	8.8	-	1	1	14.8	6.2	10.5	-	3.4	28	0	67	17	2.1	28	0	9.0	10.4	62.1	-
	<b>MONTH</b>	<b>31.5</b>	<b>40</b>	<b>6</b>	<b>6</b>	<b>12.6</b>	<b>5.5</b>	<b>9.1</b>	<b>+1.9</b>	<b>-0.2</b>	<b>4</b>	<b>1</b>	<b>149</b>	<b>28</b>	<b>-1.2</b>	<b>4</b>	<b>5</b>	<b>8.1</b>	<b>9.9</b>	<b>129.9</b>	<b>123</b>
<b>CO. WICKLOW</b>	1-10	9.3	-	4	3	12.6	4.9	8.8	-	-1.4	6	1	46	11	-6.1	6	6	7.3	8.5	52.4	-
ASHFORD	11-20	15.3	-	2	2	11.8	5.4	8.6	-	-1.2	19	1	43	5	-5.9	19	4	8.5	9.5	25.4	-
	21-END	3.8	-	1	1	15.0	3.7	9.4	-	0.6	28	0	59	15	-4.4	28	8	8.3	9.7	77.5	-
	<b>MONTH</b>	<b>28.4</b>	<b>39</b>	<b>7</b>	<b>6</b>	<b>13.2</b>	<b>4.7</b>	<b>9.0</b>	<b>+1.6</b>	<b>-1.4</b>	<b>6</b>	<b>2</b>	<b>149</b>	<b>31</b>	<b>-6.1</b>	<b>6</b>	<b>18</b>	<b>8.0</b>	<b>9.2</b>	<b>155.3</b>	<b>139</b>

MEASURED POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE					
STATION	PERIOD	P.E. (mm)		SOIL MOISTURE (mm)	
		AMOUNT	DEFICIT	ACCUM'LTD DEFICIT	SURPLUS
<b>CO. KERRY</b>	1-10	10.8	15	15	-
VALENTIA OBS.	11-20	13.0	1	16	-
	21-END	20.9	19	35	-
	<b>MONTH</b>	<b>44.7</b>			

MONTHLY EVAPORATION (mm) FROM CLASS A PAN			
COUNTY	STATION	MONTHLY RAINFALL (mm)	MONTHLY EVAPORATION (mm)
<b>CO. KERRY</b>	VALENTIA OBSERVATORY	42.3	53.8
<b>CO. KERRY</b>	NORTH KERRY LANDFILL	42.8	32.4
<b>CO. MAYO</b>	NEWPORT (FURNACE)	70.7	30.0
<b>CO. OFFALY</b>	DERRYGREENAGH	21.4	39.2
<b>CO. WATERFORD</b>	DUNGARVAN (CARRIGLEA)	23.4	35.1
<b>CO. WEXFORD</b>	J.F.K. PARK	31.5	54.1

P.E. (PENMAN)		GLOBAL SOLAR RADIATION (MJ/sq.m.)			
STATION /COUNTY	TOTAL (mm)	1ST-10TH	11TH-20TH	21ST-END	TOTAL
<b>CO. CARLOW</b>					
CARLOW (OAK PARK) *	38	81.48	61.68	130.00	273.16
<b>CO. CAVAN</b>					
BALLYHAISE*	35	66.71	57.84	122.49	247.04
<b>CO. CLARE</b>					
SHANNON AIRPORT	40	GLOBAL SOLAR RADIATION VALUES FOR STATIONS MARKED * ARE PROVISIONAL			
<b>CO. CORK</b>					
CORK AIRPORT	35				
ROCHE'S POINT*		78.69	63.34	133.78	275.81
<b>CO. DONEGAL</b>					
MALIN HEAD	38	59.87	66.96	121.35	248.18
<b>CO. DUBLIN</b>					
DUBLIN AIRPORT	39	79.69	70.71	139.51	289.91
CASEMENT AERODROME	41				
<b>CO. KERRY</b>					
VALENTIA OBS.	48	77.64	69.90	155.53	303.07
<b>CO. MAYO</b>					
BELMULLET	37	69.37	73.03	134.34	276.74
KNOCK AIRPORT	35				
<b>CO. TIPPERARY</b>					
GURTEEN (AG. COLLEGE) *	37	72.39	68.77	119.77	260.93
<b>CO. WESTMEATH</b>					
MULLINGAR*	36	71.31	56.39	125.10	252.80
<b>CO. WEXFORD</b>					
JOHNSTOWN CASTLE*	38	75.53	65.22	12.31	268.06

**Thursday 1st:** Some light rain in the West overnight cleared by early morning to give a generally dry day for much of the country. Good sunny spells everywhere, the best of which were in the East and South. The late evening saw some persistent rain showers return in the Southwest. Winds were light southerly in direction, turning to variable by afternoon.

**Rainfall:** Nil at numerous locations to 5.2 mm at Dooks  
**Temperature:** Lowest max. 9.4°C at Belderrig, highest max. 16°C at Cahore (Kilmichael Hse), Lowest min. 6.1°C at Dundalk (Annaskeagh W.W.), Highest min. 10.4°C at Killarney (Muckross Hse)  
**Sunshine:** 0.7 hours at Malin Head to 8.3 hours at Dungarvan (Carriglea)

**Friday 2nd:** Light showers moved up the west coast overnight but cleared by morning to leave the country dry for most of the day. By late evening rain began to push into the Southwest. Some good spells of sunshine for much of the country, though the south remained generally cloudy. Winds; light to moderate southeasterly in direction.

**Rainfall:** Nil at numerous locations to 13.6 mm at Roundstone  
**Temperature:** Lowest max. 8.7°C at Arklow (Ballyrichard Hse), highest max. 13.5°C at Navan (Tara Mines), Lowest min. -0.9°C at Markree, Highest min. 9.4°C at Killarney (Muckross Hse)  
**Sunshine:** Nil at numerous locations to 8.6 hours at Belmullet

**Saturday 3rd:** Rain spreads across the country overnight, with a clearance by early morning. The morning saw showers along the west coast with mostly dry and sunny weather further east. The afternoon saw showers become widespread in the West, some of these with hail, but continued mostly dry further east. Showers became widespread again during the evening and night. Winds were fresh to strong; southwest to westerly in direction.

**Rainfall:** Nil at numerous locations to 10mm at Ardfert Ballymacquinn  
**Temperature:** Lowest max. 9°C at Sligo Apt, Highest max. 13°C at Dungarvan (Carriglea), Lowest min. 3.5°C at Slieve Bloom Mtns.(Nealstown), Highest min. 8.3°C at Wexford Wildfowl Reserve  
**Sunshine:** 2.2 hours at Ardfert (Liscahane) to 8 hours at Wexford Wildfowl Reserve

**Sunday 4th:** A band of showers quickly cleared the East during the early hours of the morning. At the same time heavy showers, developing over the Atlantic, affected north and west coasts. These showers became lighter but continued in the West through the day, becoming more widespread in the afternoon, but retreating to Atlantic coasts by evening. Winds were light to moderate, variable in direction.

**Rainfall:** Nil at numerous locations to 9.6 mm at Roundstone  
**Temperature:** Lowest max. 6.6°C at Knock Airport, highest max. 12°C at Killarney (Muckross Hse), Lowest min. -2°C at Castleconnell, Highest min. 3.3°C at Sherkin Island  
**Sunshine:** 6.8 hours at Straide to 10 hours at Cork Airport

**Monday 5th:** Scattered showers along western coasts overnight, but dry elsewhere with clear spells and a widespread ground frost. Showers in the West continued through the morning, but dry with good sunshine over Midlands and East. The afternoon was mostly dry with good sunshine, just a well scattered show occurring in parts of the West. The evening and night remained dry. Winds; moderate to fresh, west to northwesterly.

**Rainfall:** Nil at numerous locations to 16.1mm at Roundstone  
**Temperature:** Lowest max. 8.6°C at Knock Apt, highest max. 13°C at Craggaunowen. Lowest min. -2.9°C at Castleconnell, highest min. 6.1°C at Sherkin Island  
**Sunshine:** 0.1 hours at Wexford Wildfowl Reserve to 9.5 hours at Sherkin Island

**Tuesday 6th:** Rain over western coasts before dawn spread eastwards becoming persistent through the late morning and early afternoon. Heaviest falls were in western areas, as showers became more intermittent in the late afternoon and early evening as some dry periods developed in places. Winds were light to fresh, turning blustery overnight especially along western coasts, southwesterly in direction.

**Rainfall:** Nil at numerous locations to 38mm at Kylemore Abbey  
**Temperature:** Lowest max. 9.9°C at Knock Apt, highest max. 12.6°C at Dooks  
**Lowest min.** -2.6°C at Thomastown (Mt. Juliet), Highest min. 6.7°C at Sherkin Island  
**Sunshine:** Nil at numerous locations to 0.8 hours at Newport (Furnace)

**Wednesday 7th:** Light rain and drizzle falling overnight turned more showery with hail and some snow, in places, by morning. The showers were more scattered by afternoon and became less frequent as the evening progressed. Winds were strong to gale force, with some storm force gusts in Northwestern areas, westerly in direction.

**Rainfall:** Nil at numerous locations to 7.4 mm at Aghnasheelan (Miskawn)  
**Temperature:** Lowest max. 6.9°C at Knock Apt, highest max. 12°C at Cahore (Kilmichael Hse), Lowest min. 0.4°C at Elphin, Highest min. 7.4 °C at Johnstown II  
**Sunshine:** 4.3 hours at Malin Head (manual) to 8.9 hours at Dungarvan (Carriglea)

**Thursday 8th:** Well scattered showers cleared before dawn to give a mostly dry day. With just the odd spot of rain or drizzle in parts of Connacht,

during the afternoon and evening. Winds were fresh, with some gale gusts along western coasts; south to southwesterly in direction.

**Rainfall:** Nil at numerous locations to 9.3 mm at Owenea (Greenans)  
**Temperature:** Lowest max. 10.3°C at Knock Apt, highest max. 15°C at Cahore (Kilmichael Hse), Lowest min. 0.2°C at Dundalk (Annaskeagh W.W.), highest min. 6.8°C at Sherkin Island  
**Sunshine:** Nil at numerous locations to 7.3 hours at Ardfert (Liscahane)

**Friday 9th:** There were spots of light rain in the western half of the country overnight, it was dry further east. During the morning, a band of light but more persistent rain spread down from the Northwest into North Connacht and Ulster. By evening this rain was affecting north Leinster and Connacht but had become very light and patchy. Winds were moderate southwesterly in direction

**Rainfall:** Nil at numerous locations to 12.3 mm at Lough Glencar  
**Temperature:** Lowest max. 11.2°C at Newport (Furnace), highest max. 19°C at Cahore (Kilmichael Hse), Lowest min. 3.5°C at Elphin, Highest min. 10.3°C at Sherkin Island  
**Sunshine:** Nil at numerous locations to 4.7 hours at Clonroche (Knoxtown)

**Saturday 10th:** Light rain or drizzle continued overnight in the West and North, remaining dry further east. This pattern continued into the day but the rain or drizzle gradually died out back to Atlantic coasts. By evening it was dry countrywide. Winds were light, mostly southwest but they became very light and later in the day variable in direction

**Rainfall:** Nil at numerous locations to 4.6 mm at Doogh (Water Treatment Plant)  
**Temperature:** Lowest max. 10°C at Raphoe (Tops), highest max. 17°C at Cahore (Kilmichael Hse), Lowest min. 5.3°C at Mallow (Spa Hse), Highest min. 11.3°C at Dublin (Glasnevin)  
**Sunshine:** Nil at numerous locations to 6.8 hours at Clonroche (Knoxtown)

**Sunday 11th:** There were damp drizzly conditions, for most of the day, in the northwest but it was otherwise dry. A mostly cloudy day, with some periods of sun in the North and East. Winds were light to moderate, west to southwesterly in the West and North. Elsewhere they were light and variable in direction.

**Rainfall:** Nil at numerous locations to 2.3 mm at Owenea (Greenans)  
**Temperature:** Lowest max. 9.5°C at Macehead, highest max. 15.4°C at Killarney (Muckross Hse), Lowest min. 4.4°C at Ashford (Cronykeery), Highest min. 9.5°C at Castleconnell  
**Sunshine:** Nil at numerous locations to 4.6 hours at Ashford (Cronykeery)

**Monday 12th:** Spots of light rain or drizzle continued in west Connacht and west Ulster overnight and into the morning but died out later. Otherwise a mostly dry but cloudy day, with some sun in the North and East. Winds were light and variable in direction.

**Rainfall:** Nil at numerous locations to 1.0 mm at Ballyroan (Oatlands)  
**Temperature:** Lowest max. 8°C at Cork Apt, highest max. 13.6°C at Phoenix Park. Lowest min. 5.9°C at Dundalk (Annaskeagh W.W.), Highest min. 9°C at Pittown (Kildalton Agr. Coll.)  
**Sunshine:** Nil at numerous locations to 2.4 hours at Casement

**Tuesday 13th:** Overcast during the night with isolated spots of drizzle but generally dry overall. Continuing dry and dull into the morning with some sunny intervals along the east coast. Remaining cloudy into the evening and night, with some mist and drizzle along the coasts, otherwise dry. Winds were light variable or southerly in direction.

**Rainfall:** Nil at numerous locations to 1.4 mm at Derryhenny Doochary  
**Temperature:** Lowest max. 8.1°C at Dunsany, highest max. 15.5°C at Dooks  
**Lowest min.** 4.2°C at Slieve Bloom Mtns (Nealstown), Highest min. 8.5°C at Sherkin Island  
**Sunshine:** Nil at numerous locations to 5.1 hours at Valentia Observatory

**Wednesday 14th:** A dry night with some patches of drizzle. Continuing dry into the morning but remaining cloudy countrywide. By afternoon some breaks in the cloud appeared allowed the sun to break through in places. By late afternoon and evening the sunny breaks became more widespread. Clear skies overnight led to patches of mist and fog. Winds were light, southwesterly in direction.

**Rainfall:** Nil at numerous locations to 4.4 mm at Moyard (Shanbolard)  
**Temperature:** Lowest max. 8°C at Johnstown II, highest max. 15.1°C at Ardfert (Liscahane), Lowest min. -1.8°C at Dublin Apt, Highest min. 8.5°C at Valentia Observatory  
**Sunshine:** Nil at numerous locations to 5.8 hours at Ardfert (Liscahane)

**Thursday 15th:** Persistent rain affected the West and North during the morning. The rain pushed very slowly eastwards during the afternoon and it brightened up in the West with good sunshine in some areas. Rain returned to the West during the evening, heavy in some areas. Patchier rain in the Midlands but mostly dry in the east. Winds; moderate, south to southwesterly

**Rainfall:** Nil at numerous locations to 35.2 mm at Delphi Lodge II  
**Temperature:** Lowest max. 10°C at Knock Apt, highest max. 14.4°C at Belderrig  
**Lowest min.** 2.1°C at Ardee (Boharnamoe), Highest min. 8.7°C at Belmullet  
**Sunshine:** Nil at numerous locations to 6.7 hours at Belmullet



**Friday 16th:** Rain overnight in most areas but eastern parts of Leinster remained dry. Drying up in the West during the morning, the rain persisted in the Midlands, South and East for most of the afternoon. Overnight the rain was slow to clear the Southeast and a few heavy showers fell there. Winds were light; southwesterly in direction.

**Rainfall:** Nil at numerous locations to 13.1 mm at Brittas (Glenaraneen)  
**Temperature:** Lowest max. 8.2°C at Ballinamore (Creevy No.2), highest max. 12.1°C at Dun Laoghaire. Lowest min. 4°C at Littleton II, Highest min. 10°C at Dungarvan (Carriglea)  
**Sunshine:** Nil at numerous locations to 5.4 hours at Belmullet

**Saturday 17th:** Cold and frosty overnight, mostly dry but showers began to spread into the West and Southwest towards morning. Showers became widespread everywhere except in Ulster by afternoon. Some of the showers were heavy, particularly through the Midlands; but they died out by the evening. Winds were light; variable in direction, settling into a north to northwesterly direction in the evening.

**Rainfall:** Nil at numerous locations to 27.8 mm at Derryhillagh  
**Temperature:** Lowest max. 6.7°C at Maam Valley, highest max. 12.1°C at Ardtarmon. Lowest min. -2.1°C at Mullingar, Highest min. 5.7°C at Dublin (Merriion Sq)  
**Sunshine:** 0.1 hours at Belmullet to 8.7 hours at Malin Head

**Sunday 18th:** A wet night along eastern coasts, generally dry elsewhere. Rain petered out before dawn in the East to give a bright morning everywhere, with just the odd light rain or hail shower in the west of Connacht. It remained bright during the afternoon but there were well scattered showers of rain or hail also. After dark the odd shower affected western coastal counties. Winds were light, southwesterly in direction.

**Rainfall:** Nil at numerous locations to 4.5 mm at Newport (Ardagh Lodge)  
**Temperature:** Lowest max. 9.1°C at Kesh Apt, highest max. 13°C at Arklow (Ballyrichard Hse) 13°C at Cavan (Drumconnick) Lowest min. -2.4°C at Glenties Hatchery, Highest min. 5.5°C at Sherkin Island  
**Sunshine:** 7.2 hours at Newport (Furnace) to 11.4 hours at Clonroche (Knoxton)

**Monday 19th:** Dry and clear overnight with a widespread ground frost. The morning was mainly dry with some sunny spells, but some drizzle along the northwest coast. Remaining dry through the evening with just the odd break in cloud cover. Winds were light to moderate, southwesterly in direction.

**Rainfall:** Nil at numerous locations to 6.2 mm at Dunlewy Lough  
**Temperature:** Lowest max. 10.5°C at Johnstown II, highest max. 14.0°C at Straide  
 Lowest min. -2.7°C at Thomastown (Mt. Juliet), Highest min. 7.4°C at Macehead  
**Sunshine:** Nil at Belmullet to 4.0 hours at Ashford (Cronykeery)

**Tuesday 20th:** Mostly dry during the morning with some sunny spells, though some light showers broke out along western and southern coasts. The afternoon again mostly dry, with just the odd well scattered light shower in places. Evening and night continued dry with clear spells in places. Winds were light to moderate; southwesterly.

**Rainfall:** Nil at numerous locations to 1.7 mm at Kylemore Abbey Gardens  
**Temperature:** Lowest max. 10.6°C at Knock Apt, highest max. 15.6°C at Dooks  
 Lowest min. 3.7°C at Slieve Bloom Mtns (Nealstown), Highest min. 10.3°C at Dooks  
**Sunshine:** Nil at Wexford Wildfowl Reserve to 5.5 hours at Belmullet

**Wednesday 21st:** Mainly dry and cloudy overnight with some patchy rain and drizzle in parts. A generally dry morning with some sunshine breaking through and just a little mist or drizzle near Atlantic fringes. Evening and night remained dry with clear spells. Winds were moderate, southerly in direction

**Rainfall:** Nil at numerous locations to 5.3 mm at Musherah  
**Temperature:** Lowest max. 9.3°C at Cork Apt, highest max. 14.2°C at Craugaunowen.  
 Lowest min. 4.7°C at Arklow (Ballyrichard Hse), Highest min. 9.9°C at Dublin (Glasnevin)  
**Sunshine:** Nil at numerous locations to 4.2 hours at Malin Head

**Thursday 22nd:** A widespread frost cleared quickly after dawn to give a mostly dry day everywhere, with some intermittent light showers in the South and Southeast during the early evening. These showers became heavier and more persistent after dark; as they began to spread northwest overnight. Winds were light; southeasterly in direction.

**Rainfall:** Nil at numerous locations to 11.2 mm at Old Ross (Dunanore)  
**Temperature:** Lowest max. 10.0°C at Cork Apt, highest max. 16.4°C at Belmullet 16.4°C at Glenties Hatchery. Lowest min. -0.5°C at Thomastown (Mt. Juliet), Highest min. 7.2°C at Killarney (Muckross Hse)  
**Sunshine:** 0.1 hours at Cork Apt to 8.4 hours at Belmullet

**Friday 23rd:** Misty overnight with rain and showers in many areas, some heavy and thundery especially in the South and East. Damp start in places in the morning with rain along northern coasts, and showers elsewhere some heavy but many died away in the afternoon. Winds were light southeasterly in direction.

**Rainfall:** Nil at numerous locations to 7.0 mm at Donoughmore

**Temperature:** Lowest max. 10.1°C at Knock Apt, highest max. 15.5°C at Glenealy (Kilmacurragh Park). Lowest min 3.6°C at Castleconnell, Highest min 8.9 °C at Dublin (Glasnevin)  
**Sunshine:** Nil at Sherkin Island to 5.2 hours at Dublin Airport

**Saturday 24th:** Overnight mist cleared early to give a mostly warm day. Good periods of sunshine in the Midlands and East saw high temperatures there for much of the day; whilst much of the West and Southwest remained under thick cloud cover. After dark some light showers from the Atlantic moved in over the west coast. Winds were light; south easterly in direction.

**Rainfall:** Nil at numerous locations to 1.1 mm at Togher (Barmeath Castle)  
**Temperature:** Lowest max. 12.8°C at Roches Point, highest max. 19.5°C at Cavan (Drumconnick). Lowest min. 0.7°C at Mount Dillon, Highest min. 9.9°C at Valentia Observatory  
**Sunshine:** Nil at Galway (Univ) to 8.0 hours at Dublin (Glasnevin)

**Sunday 25th:** A dry day throughout with prolonged sunshine countrywide. It became quite warm by afternoon, though the south coast was quite a bit cooler as onshore breezes held temperatures back. Winds were light, southeasterly.

**Rainfall:** Nil at numerous locations to 0.8 mm at Parknahown Cullahill  
**Temperature:** Lowest max. 13.7°C at Cork Apt, highest max. 21.5°C at Ardee (Boharnamoe). Lowest min. 2.6°C at Mount Dillon, Highest min. 10.8°C at Valentia Observatory  
**Sunshine:** 6.6 hours at Valentia Observatory to 10.7 hours at Dublin Apt

**Monday 26th:** Cold overnight with some dense fog, this cleared quickly after sunrise. Some light well scattered showers cleared quickly to give a warm day countrywide with prolonged sunshine. Temperatures increases through the afternoon, with the exceptions of the south and southeast coasts as onshores breezes limited temperatures there. Winds were light, southeasterly.

**Rainfall:** Nil at numerous locations to 1.1 mm at Owenea (Greenans)  
**Temperature:** Lowest max. 12.9°C at Roches Point, highest max. 22.0°C at Dooks  
 Lowest min. -0.1°C at Thomastown (Mount Juliet), Highest min. 10.9°C at Valentia Observatory  
**Sunshine:** 9.4 hours at Dublin (Glasnevin) to 11.4 hours at Ballyshannon (Cathleen's Fall)

**Tuesday 27th:** Dry with mist in places overnight and some ground frost. The day was dry with good periods of sunshine, becoming very warm in places by afternoon. Temperatures dropped after dark, with clear skies and groundfrost returning. Winds; light to moderate, southerly in direction.

**Rainfall:** Nil at numerous locations to 0.6 mm at Ballymore Eustace D.C.W.W.  
**Temperature:** Lowest max. 13.5°C at Cork Apt, highest max. 22.6°C at Glenties Hatchery.  
 Lowest min. -0.8°C at Thomastown (Mount Juliet), Highest min. 10.4°C at Valentia Observatory  
**Sunshine:** 9.7 hours at Dublin (Glasnevin) to 11.5 hours at Casement 11.5 hours at Cork Apt

**Wednesday 28th:** Clear overnight with fog and mist in places and a widespread ground frost also. After fog and mist cleared, there was prolonged sunshine throughout. Under clear skies, ground frost developed in places after dark. Winds were light; southerly in direction.

**Rainfall:** Nil at numerous locations to 0.4 mm at Creeslough (Carrownamaddy)  
**Temperature:** Lowest max. 13.9°C at Macehead, highest max. 21.6°C at Dooks  
 Lowest min. -2.4°C at Thomastown (Mount Juliet), Highest min. 7.5°C at Knock Apt  
**Sunshine:** 8.0 hours at Wexford Wildfowl Reserve to 11.5 hours at Belmullet

**Thursday 29th:** A dry day with some sunny spells, cloudier than recently especially in Ulster and Leinster. Light breezes from the Northwest making the northeast coast feel cooler the rest of the country, feeling warmest in the South and Southeast. Generally remaining dry into the night, with some drizzle in parts of the Northwest. Winds were light; northerly.

**Rainfall:** Nil at numerous locations to 1.2 mm at Crolly (Filter Works)  
**Temperature:** Lowest max. 9.8°C at Malin Head, highest max. 21.1°C at Arklow (Ballyrichard Hse). Lowest min. -1.5°C at Castleconnell, Highest min. 8.1°C at Dublin (Merriion Sq)  
**Sunshine:** Nil at Malin Head to 11.2 hours at Sherkin Island 11.2 hours at Valentia Observatory

**Friday 30th:** Light rain overnight in the Northwest cleared to give a dry day countrywide. Clear skies over the Southwest gave prolonged periods of sunshine there, whilst much of the rest of the country remained cloudy with few if any breaks throughout the day. Winds were light to moderate; northeast to easterly.

**Rainfall:** Nil at numerous locations to 2.7 mm at Termon (Goaldrum)  
**Temperature:** Lowest max. 9.4°C at Knock Apt, highest max. 16.1°C at Valentia Observatory.  
 Lowest min. 2.6°C at Craugaunowen, Highest min. 9.3°C at Dublin (Glasnevin)  
**Sunshine:** Nil at numerous locations to 10.6 hours at Sherkin Island

**Saturday 31th:** A generally dry day with some sunny spells, the best of these were in the East. Early evening saw some light showers over the Northwest, but these cleared away quickly. Winds were light to moderate; strongest along the west coast, northeast to easterly.

**Rainfall:** Nil at numerous locations to 1.4 mm at Derryhenny Doochary  
**Temperature:** Lowest max. 10.0°C at Gurteen, highest max. 15.5°C at Mallow (Spa Hse).  
 Lowest min. 5.5°C at Sligo Apt, Highest min. 9.0°C at Dublin (Glasnevin)  
**Sunshine:** Nil at Sherkin Island to 8.1 hours at Ashford (Cronykeery)

### DRIEST MARCH IN NUMBER OF YEARS AT MOST LOCATIONS

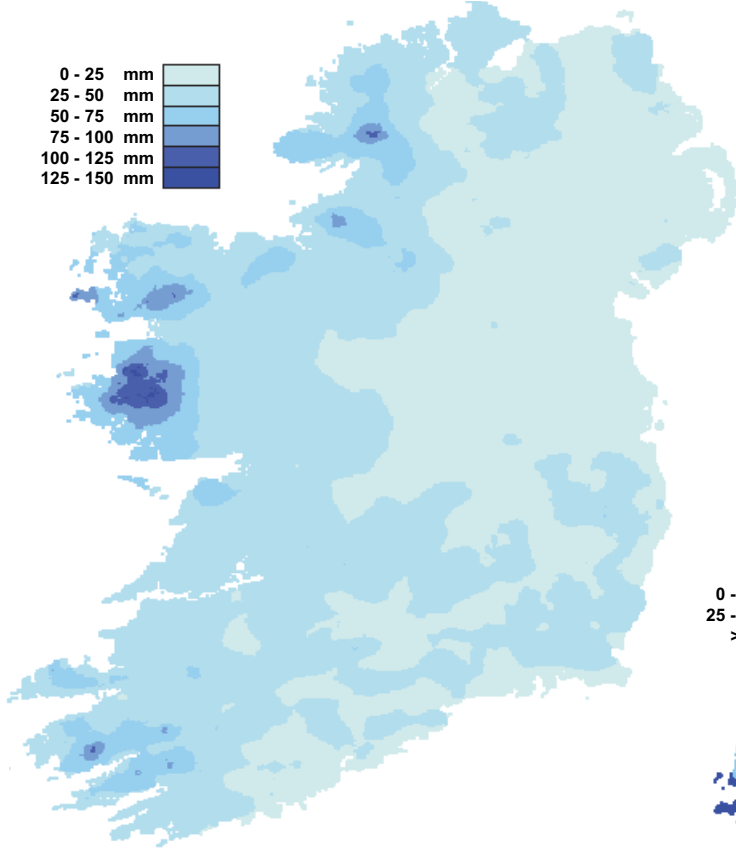
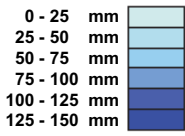
Rainfall was below average everywhere with the lowest accumulations recorded in the counties of Louth, Monaghan and Dublin. Monthly totals ranged from 7.7 mm at Ardee (St. Brigid's Hospital), Co. Louth, it's driest March since 1990 (22 years) to 135.7 mm at Delphi Lodge, Co. Mayo. Percentage of average values were highest in the counties of Galway, Sligo and Mayo with percentages ranging from 12 % at Ballineen (Carbery), Co. Cork, it's driest March since the station opened in 1996 (16 years) to 91% at Roundstone, Co. Galway. The station at Mt. Inchigeelagh (Pipe hill), Co. Cork recorded its driest March since records began in 1949 with 38.0 mm. Most highest daily falls occurred in the first few days and mid-month, with Kylemore Abbey, Co. Galway recording the month's highest daily rain of 38.0 mm on the 6th, it's highest daily March fall in five years.

Number of wetdays (*days with 1mm or more of rainfall*) ranged from three days at various sites, mostly located in the Dublin region to 15 days at Dooagh, Co. Mayo. The number of wetdays recorded across the country was below average for the time of year.

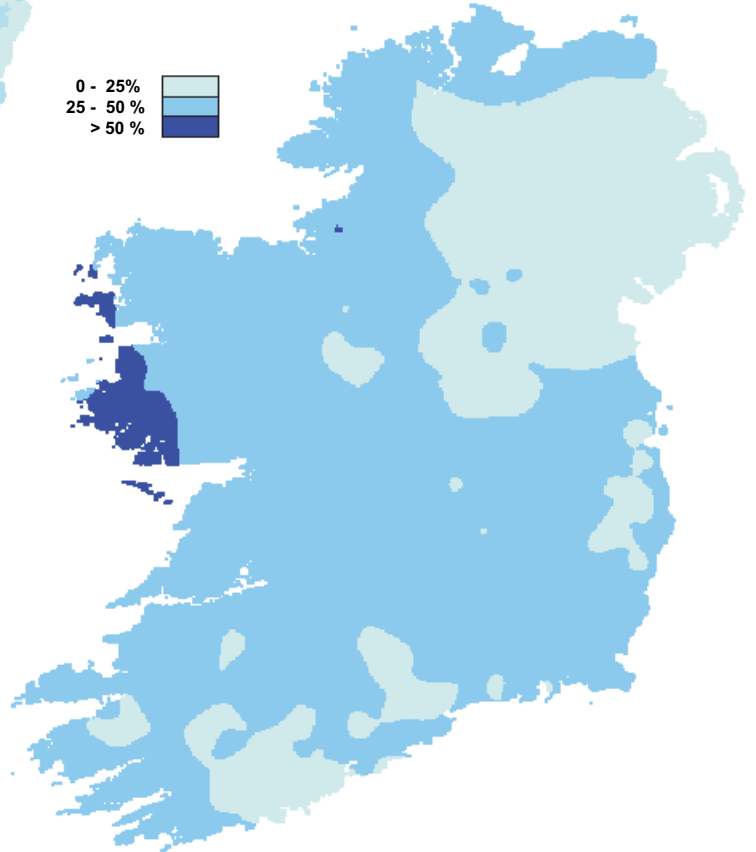
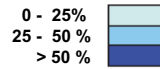
COUNTY/ STATION*	TOTAL AMOUNT (mm)	% OF 1981-2010 AVERAGE	MOST IN A DAY / DATE		NUMBER OF RAINDAYS (≥0.2mm)	NUMBER OF WETDAYS (≥1mm)
<b>CO. CARLOW</b>						
CARLOW (OAK PARK)	18.0	28	4.9	16	7	6
<b>CO. CAVAN</b>						
BALLYHAISE	22.8	27	5.4	6	13	7
<b>CO. CLARE</b>						
SHANNON AIRPORT	28.3	36	5.5	15	12	8
CARRON	45.5	34	9.7	6	15	10
<b>CO. CORK</b>						
ROCHE'S POINT	18.1	23	5.3	16	8	6
CORK AIRPORT	23.7	24	5.7	6	10	6
SHERKIN ISLAND	29.0	31	12.3	16	11	7
BALLINCURRIG (PEAFIELD)	20.6	20	6.6	16	7	7
<b>CO. DONEGAL</b>						
MALIN HEAD	29.8	34	6.0	7	17	10
GLENTIES HATCHERY	36.6	28		not available		
BALLYSHANNON (CATHLEEN'S FALL)	24.9	26	6.5	9	14	7
<b>CO. DUBLIN</b>						
DUBLIN (PHOENIX PARK)	28.1	52	17.3	17	6	3
DUBLIN AIRPORT	25.6	49	12.5	17	7	5
CASEMENT AERODROME	27.5	54	11.7	17	6	5
DUBLIN (MERRION SQUARE)	10.0	19	3.7	16	6	3
<b>CO. GALWAY</b>						
MAAM VALLEY	121.0	52	37.7	6	16	10
<b>CO. KERRY</b>						
VALENTIA OBSERVATORY	42.3	34	7.8	15	16	9
ARDFERT (LISCAHANE)	31.4	34	5.7	2	12	7
<b>CO. LIMERICK</b>						
MOUNTRUSSELL	36.4	36	7.7	2	13	9
<b>CO. MAYO</b>						
BELMULLET	41.4	42	9.4	17	16	11
STRAIDE	43.5	40	13.0	15	15	7
KNOCK AIRPORT	32.8	28	11.9	15	18	7
DELPHI LODGE	135.7		35.2	15	20	13
<b>CO. MEATH</b>						
WARRENTOWN	20.3	32	5.7	16	10	8
<b>CO. MONAGHAN</b>						
CARRICKMACROSS (DUNOGE)	10.7	14	3.6	16	7	5
<b>CO. OFFALY</b>						
DERRYGREENAGH	21.4	30	6.8	6	11	6
<b>CO. SLIGO</b>						
ARDTARMON	37.1	45	6.7	6	14	9
<b>CO. TIPPERARY</b>						
GURTEEN (AG.COLLEGE)	28.7	39	7.4	6	12	8
FETHARD (PARSONSHILL)	22.1	30	7.4	16	11	7
<b>CO. WATERFORD</b>						
WATERFORD (TYCOR)	24.4	31	5.9	6	8	6
DUNGARVAN (CARRIGLEA)	23.4	24	7.6	16	8	6
<b>CO. WESTMEATH</b>						
MULLINGAR	15.4	20	4.2	16	10	5
<b>CO. WEXFORD</b>						
JOHNSTOWN CASTLE	31.7	42	8.7		12	7
JOHN F. KENNEDY PARK	31.5	40	8.8	22	6	6
CLONROCHE (KNOXTOWN)	30.2		9.2	22	8	7
<b>CO. WICKLOW</b>						
ASHFORD (CRONYKEERY)	28.4	39	14.1	17	7	6

\* TABLE REPRESENTS DATA FROM ONLY A SMALL SELECTION OF RAINFALL STATIONS. ALL DATA IS 09-09 HR

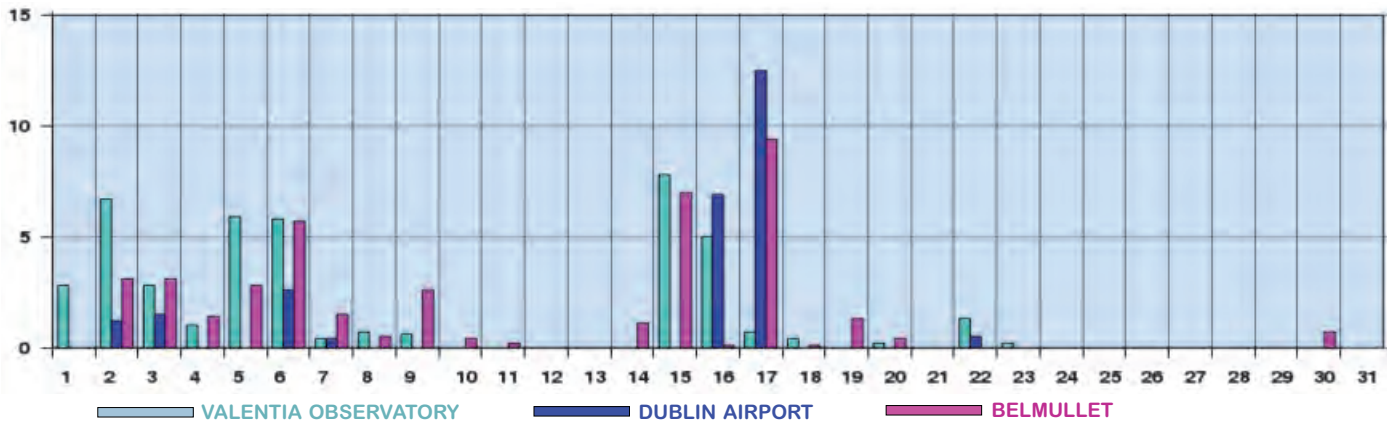
TOTAL RAINFALL (mm)



PERCENTAGE OF NORMAL RAINFALL  
(1981-2010 NORMALS)



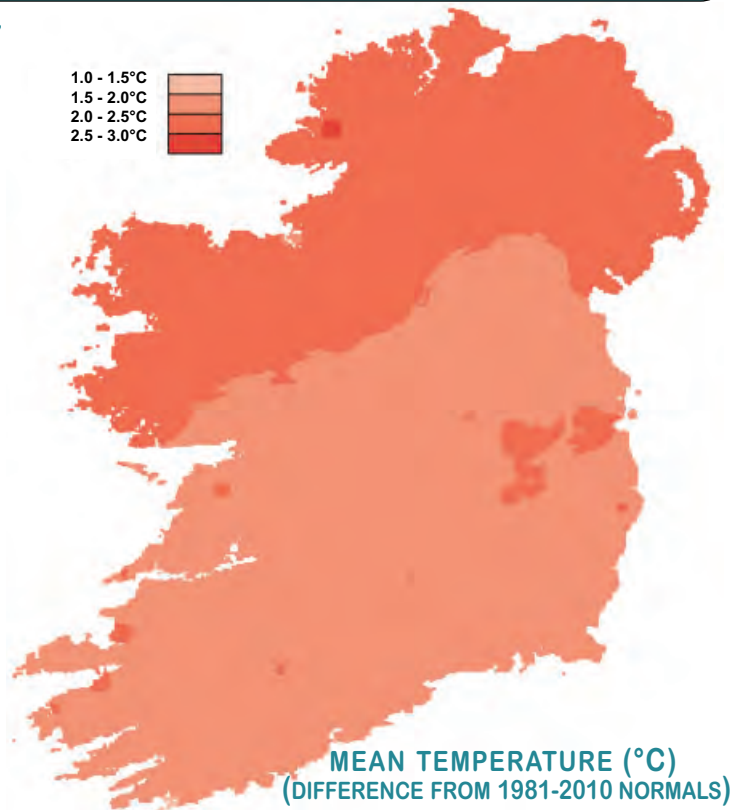
DAILY 09-09hr RAINFALL VALUES (mm)



**WARMEST MARCH ON RECORD AT MANY LOCATIONS**

Mean air temperatures for the month were above average with differences above average largest in the North and West. Deviations from average ranged from +1.2°C at Makree Castle, Co. Sligo to +2.7°C at Glenties Hatchery, Co. Donegal, recording a mean temperature of 9.2°C and its warmest March since 1961 (51 years). Mean temperatures ranged from 7.7°C at Slieve Bloom Mountains (Nealstown), Co. Laois, it's warmest March since 1999 (13 years) to 10.3°C at Valentia Observatory, its warmest since 1957 (55 years). Most stations reported it was their warmest March in a number of years and on record in some places, with data showing the warmest March in five to 56 years across the country.

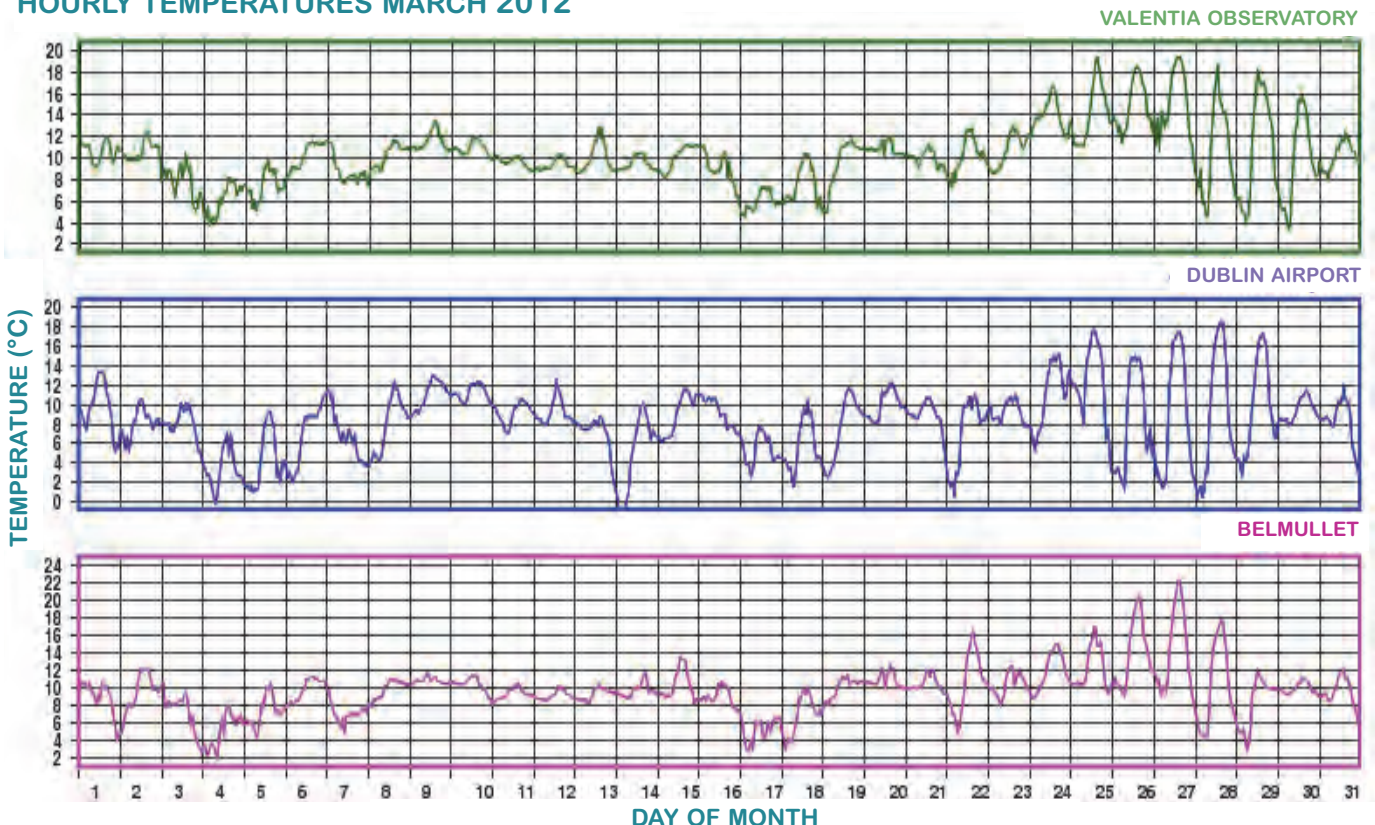
All highest maximums were measured in the last week of the month, with the month's highest temperature of 22.6°C recorded at Glenties Hatchery, Co. Donegal on March 27th, it's highest for March at the site since it opened in 1961 (51 years). Highest maximum temperatures elsewhere were the highest in at least five to 47 years. Castleconnell, Co. Limerick recorded the month's lowest minimum temperature of -2.9°C on the 5th. Phoenix Park's



**MEAN TEMPERATURE (°C)  
(DIFFERENCE FROM 1981-2010 NORMALS)**

lowest temperature of 0.1°C was its highest March minimum since 1981 (31 years), and other stations except in the North and Southeast reported their highest minimums in at least five to 20 years. Number of days with air frost ranged from zero at numerous locations to nine at Thomastown (Mt. Juliet), Co. Kilkenny.

**HOURLY TEMPERATURES MARCH 2012**



COUNTY/ STATION*	MEAN MAX.	MEAN MIN.	DIFFERENCE FROM 1981-2010		HIGHEST MAX./DATE	LOWEST MIN./DATE		LOWEST GRASS MIN./DATE		DAYS WITH FROST	
			MEAN	AVERAGE						AIR	GROUND
<b>CO. CARLOW</b>											
CARLOW (OAK PARK)	12.6	4.7	8.7	+1.4	18.9 28	-0.2 6	-5.2 28	2	13		
<b>CO. CAVAN</b>											
BALLYHAISE	12.3	4.5	8.4	+1.7	19.8 25	-1.6 17	-4.5 18	3	12		
<b>CO. CLARE</b>											
SHANNON AIRPORT	13.0	6.1	9.5	+1.7	19.6 27	-0.1 4	-4.0 4	1	12		
CARRON	12.2	5.3	8.7	+2.1	19.2 27	-0.3 4	-6.4 4	1	11		
<b>CO. CORK</b>											
ROCHE'S POINT	11.6	6.9	9.3	+1.5	18.9 29	1.8 4	-0.7 19	0	1		
CORK AIRPORT	11.4	5.6	8.5	+1.6	18.8 29	0.4 4	-3.8 19	0	6		
SHERKIN ISLAND	12.5	7.5	10.0	+1.7	18.7 29	3.3 4	0.8 17	0	0		
BALLINCURRIG (PEAFIELD)	12.7	4.9	8.8	+2.1	21.0 28	-0.3 4 5	-1.1 5	2	3		
<b>CO. DONEGAL</b>											
MALIN HEAD	12.1	6.6	9.3	+2.4	19.9 25	1.7 4	-1.1 6	0	4		
GLENTIES HATCHERY	13.2	5.3	9.2	+2.7	22.6 27	-2.4 18	-6.1 18	4	11		
BALLYSHANNON (CATHLEEN'S FALL)	12.3	5.8	9.1	+2.4	20.8 27	-0.8 18		1			
<b>CO. DUBLIN</b>											
DUBLIN (PHOENIX PARK)	13.2	5.0	9.1	+2.2	20.7 25	0.1 14	-4.8 19	0	15		
DUBLIN AIRPORT	12.3	4.3	8.3	+1.5	18.7 28	-1.8 14	-5.3 14	4	13		
CASEMENT AERODROME	12.6	4.9	8.8	+2.0	19.8 25	0.1 28	-5.9 14	0	13		
DUBLIN (MERRION SQUARE)	12.8	6.5	9.7	+1.8	19.6 28	1.9 4 14		0			
<b>CO. GALWAY</b>											
MAAM VALLEY	13.1	5.8	9.5	+2.1	20.0 28	0.2 4	-3.4 4	0	4		
<b>CO. KERRY</b>											
VALENTIA OBSERVATORY	13.2	7.3	10.3	+2.1	20.2 27	2.4 4	-1.9 29	0	6		
ARDFERT (LISCAHANE)	13.9	5.9	9.9	+2.1	20.8 25	1.0 4	0.0 4	0	0		
<b>CO. LIMERICK</b>											
MOUNTRUSSELL	12.1	5.6	8.8	+2.1	18.9 27	0.1 4	-1.9 4	0	5		
<b>CO. MAYO</b>											
BELMULLET	12.6	6.9	9.7	+2.1	22.2 27	1.8 4	-2.2 18	0	5		
STRAIDE	13.0	5.0	9.0	+2.1	20.5 28	-1.0 4 18	-8.0 18	4	13		
KNOCK AIRPORT	11.3	4.8	8.1	+2.4	18.8 28 27	-1.5 4	-3.8 4	1	8		
DELPHI LODGE	12.9	6.0	9.5	+1.9	20.1 28	0.2 4	-2.6 18	0	6		
<b>CO. MEATH</b>											
WARRENTOWN	12.7	4.6	8.7	+2.0	21.0 25	-0.9 14 17	-4.5 14	3	15		
<b>CO. MONAGHAN</b>											
CARRICKMACROSS (DUNOGE)	12.5	3.8	8.2	+1.7	20.1 28	-1.9 17	-3.9 6	6	14		
<b>CO. OFFALY</b>											
DERRYGREENAGH	13.1	4.1	8.6	+2.2	20.2 27	-1.3 17	-5.7 18	4	15		
<b>CO. SLIGO</b>											
ARDTARMON	12.8	6.4	9.6	+2.4	20.9 27	1.1 4	-2.7 4	0	11		
<b>CO. TIPPERARY</b>											
GURTEEN (AG. COLLEGE)	12.3	4.5	8.4	+1.4	18.4 28	-0.9 4	-5.8 28	4	14		
FETHARD (PARSONSHILL)	12.5	5.0	8.7	+2.4	19.4 28	-0.8 4	-2.1 5 19	1	5		
<b>CO. WATERFORD</b>											
WATERFORD (TYCOR)	13.0	6.1	9.6	+2.4	20.0 29	1.5 4 19		0			
DUNGARVAN (CARRIGLEA)	13.1	5.4	9.3	+1.8	20.0 29	-0.2 19	-2.4 19	1	9		
<b>CO. WESTMEATH</b>											
MULLINGAR	12.4	3.9	8.2	+1.8	19.6 27	-2.1 17	-6.0 17	4	14		
<b>CO. WEXFORD</b>											
JOHNSTOWN CASTLE	11.4	6.0	8.7	+1.6	18.1 29	0.2 4	-4.0 4	0	6		
JOHN F. KENNEDY PARK	12.6	5.5	9.0	+1.9	19.5 28 29	-0.2 4	-1.2 4	1	5		
CLONROCHE (KNOXTOWN)	12.2	4.5	8.4	+1.9	19.5 28	-0.5 6	-4.4 6	1	10		
<b>CO. WICKLOW</b>											
ASHFORD (CRONYKEERY)	13.2	4.7	8.9	+1.6	19.4 29	-1.4 6	-6.1 6	2	18		

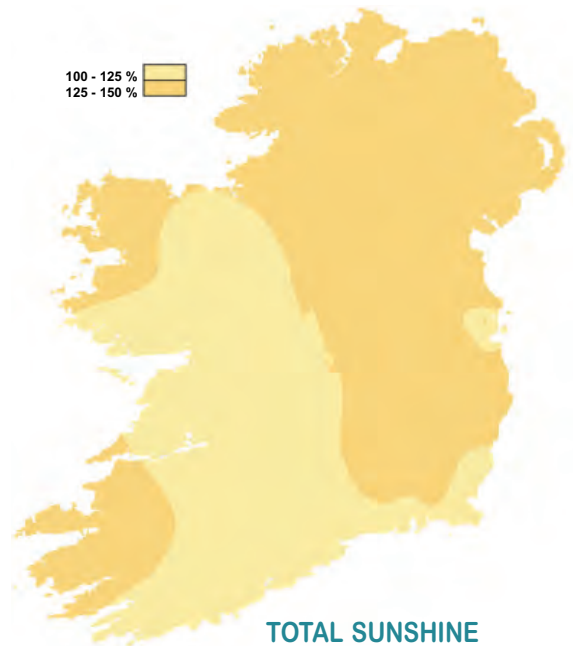
\* TABLE REPRESENTS DATA FROM ONLY A SELECTION OF CLIMATOLOGICAL STATIONS. ALL DATA IS 09-09 HR

**SUNSHINE ABOVE AVERAGE EVERYWHERE**

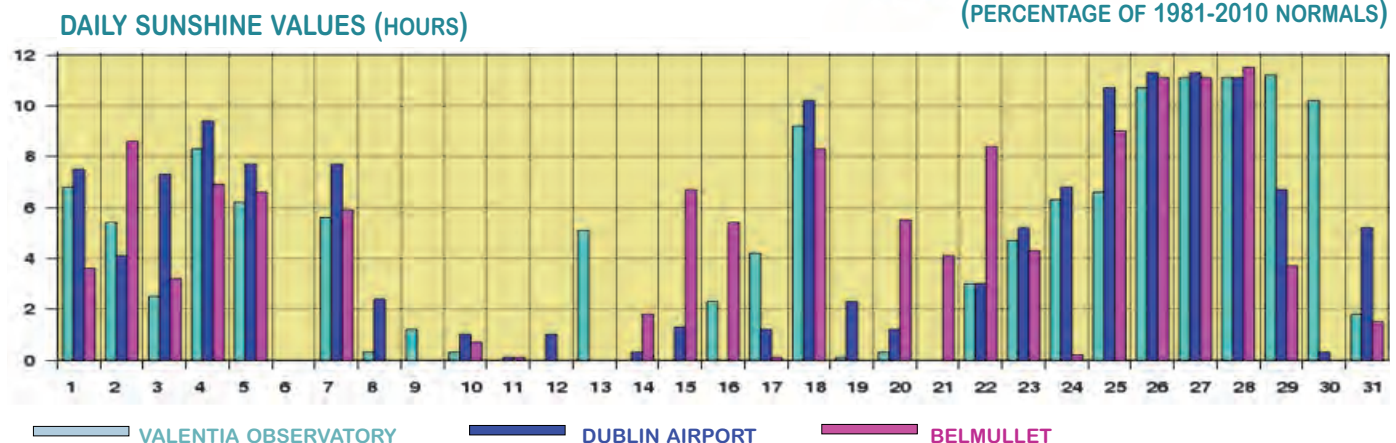
Above average sunshine totals were recorded everywhere with percentages ranging from 112% in the Southeast at Wexford Wildfowl Reserve to 146% in the Southwest at Valentia Observatory. Monthly totals ranged from just under 109 hours at Knock Airport to over 155 hours at Ashford (Cronykeery), Co. Wicklow, with Casement Aerodrome reporting over 132 hours of sunshine and its sunniest March since 2003 (8 years). Most stations recorded their highest daily sunshine during the last week of March, with numerous stations recording the monthly highest of 11.5 hours on the 27th and/or the 28th.

Global solar radiation totals were above average with values ranging from 106% at Malin Head to 119% at Valentia Observatory.

100 - 125 %  
125 - 150 %



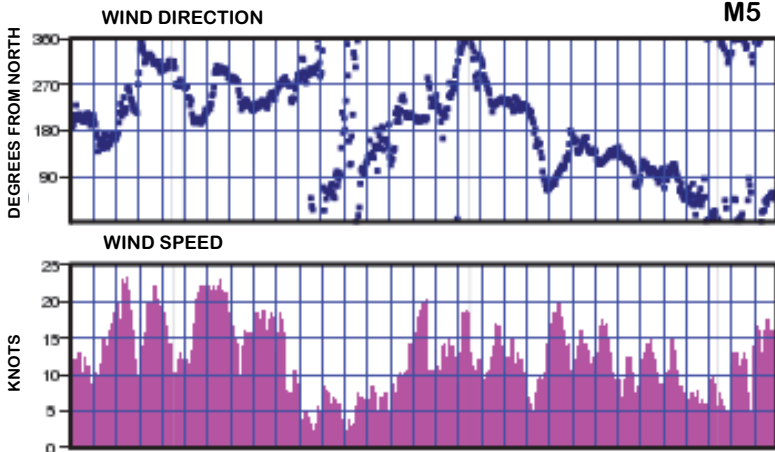
**TOTAL SUNSHINE (PERCENTAGE OF 1981-2010 NORMALS)**



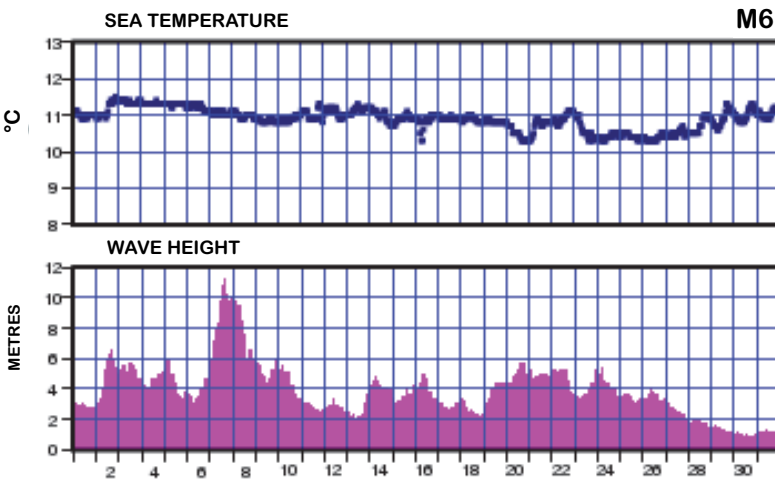
COUNTY/ STATION*	DAILY MEAN (HOURS/DAY)	% OF 1981-2010 AVERAGE	% OF POSSIBLE	MOST IN A DAY/DATE
<b>CO. CLARE</b>				
SHANNON AIRPORT	3.69	115	31	11.4 28 27
<b>CO. CORK</b>				
CORK AIRPORT	3.87	116	33	11.5 28 27
SHERKIN ISLAND	4.24	116	36	11.2 28 27
BALLINCURRIG (PEAFIELD)	4.16	123		11.1 28
<b>CO. DONEGAL</b>				
BALLYSHANNON (CATHLEEN'S FALL)	3.83	128	32	11.4 26
<b>CO. DUBLIN</b>				
DUBLIN AIRPORT	4.40	125	37	11.3 27 26
CASEMENT AERODROME	4.28	131	36	11.5 27
<b>CO. GALWAY</b>				
GALWAY (UNIV.COLLEGE)	3.79	115	32	11.1 27
<b>CO. KERRY</b>				
VALENTIA OBSERVATORY	4.34	146	37	11.2 29
ARDFERT (LISCAHANE)	4.60	135	39	10.9 27
<b>CO. MAYO</b>				
BELMULLET	4.14	132	35	11.5 28
STRAIDE	3.70	123		11.2 27 28
KNOCK AIRPORT	3.51	120		11.2 28
<b>CO. WATERFORD</b>				
DUNGARVAN (CARRIGLEA)	4.15	124	35	11.0 28
<b>CO. WEXFORD</b>				
JOHN F. KENNEDY PARK	4.19	123	35	11.0 27
CLONROCHE (KNOXTOWN)	4.62	136		11.4 18
<b>CO. WICKLOW</b>				
ASHFORD (CRONYKEERY)	5.01	139	42	11.1 27 28

\* TABLE REPRESENTS SUNSHINE DATA FROM A SELECTION OF CLIMATOLOGICAL STATIONS.

MARINE OBSERVATIONS FROM IRISH MARINE DATA BUOY NETWORK



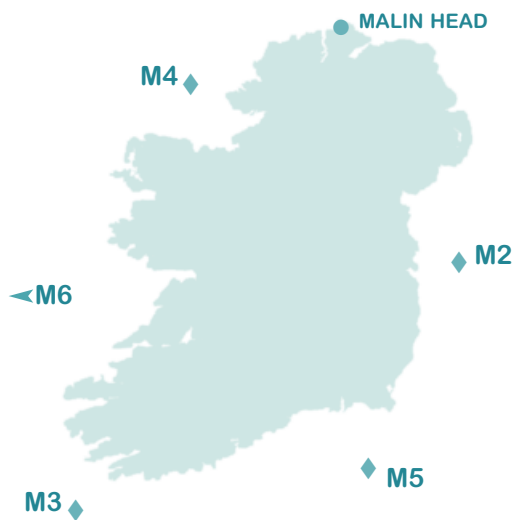
HOURLY WIND CONDITIONS AT M5 (51°41.4'N, 6.°42.3'W)



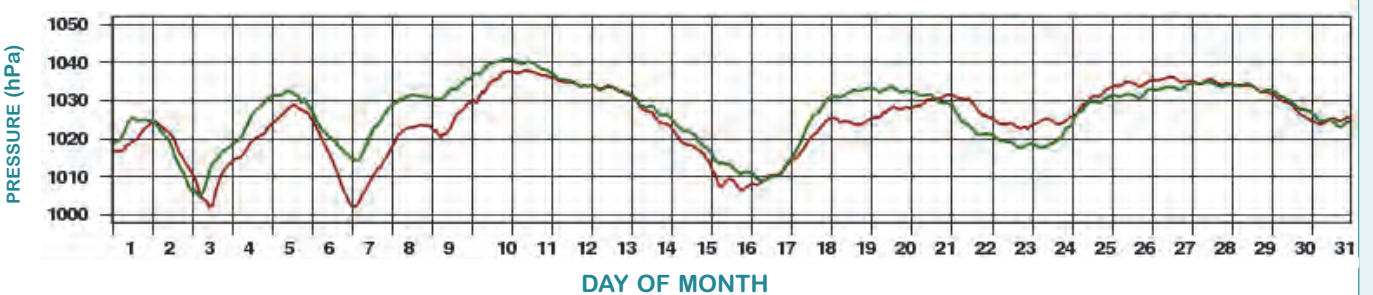
HOURLY SEA TEMPERATURE AND WAVE CONDITIONS AT M6 (53°03.6'N, 15.°55.8'W)

BUOY	SEA SURFACE TEMP. (°C)	MEAN WIND SPEED (knots)	MAX 10-MIN WIND (knots)	MEAN SIGNIFICANT WAVE HEIGHT (m.)	MAX SIGNIFICANT WAVE HEIGHT (m.)
M2	8.4	9.8	26.1	n/a	n/a
M3	Not Available				
M4	10.4	15.5	32.6	n/a	n/a
M5	9.7	11.1	23.2	n/a	n/a
M6	10.9	n/a	n/a	3.7	11.2
MALIN HEAD	9.1				

SUMMARY OF MEAN MONTHLY VALUES

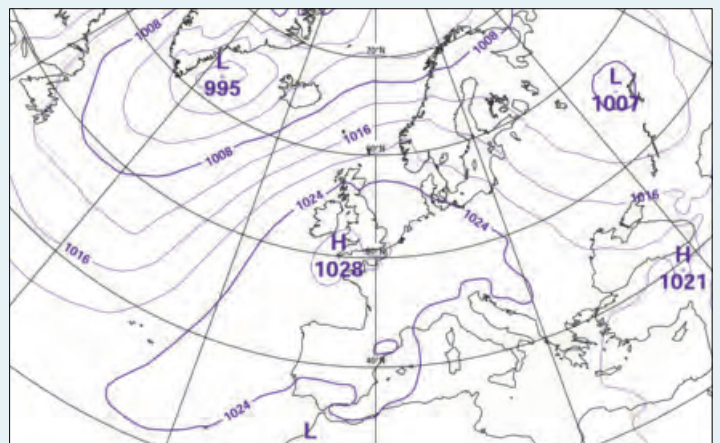


HOURLY MEAN SEA LEVEL PRESSURE MARCH 2012



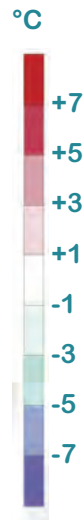
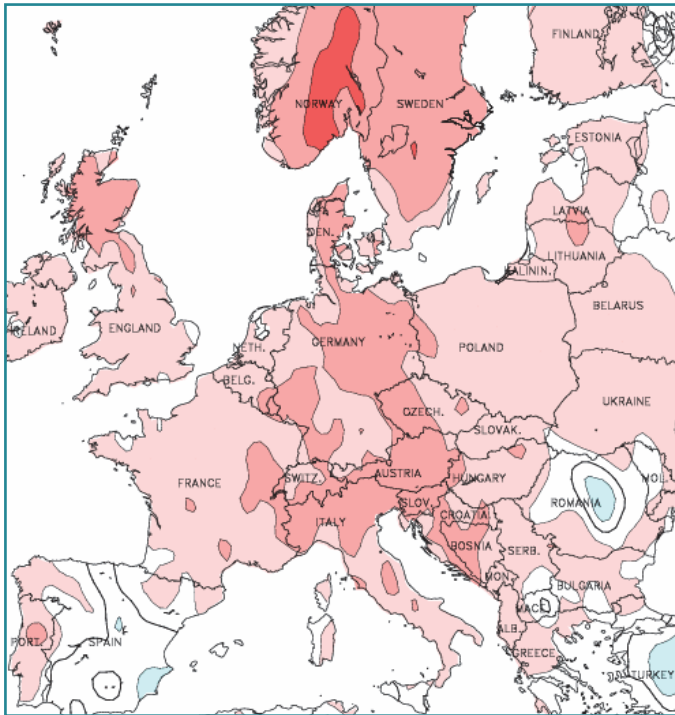
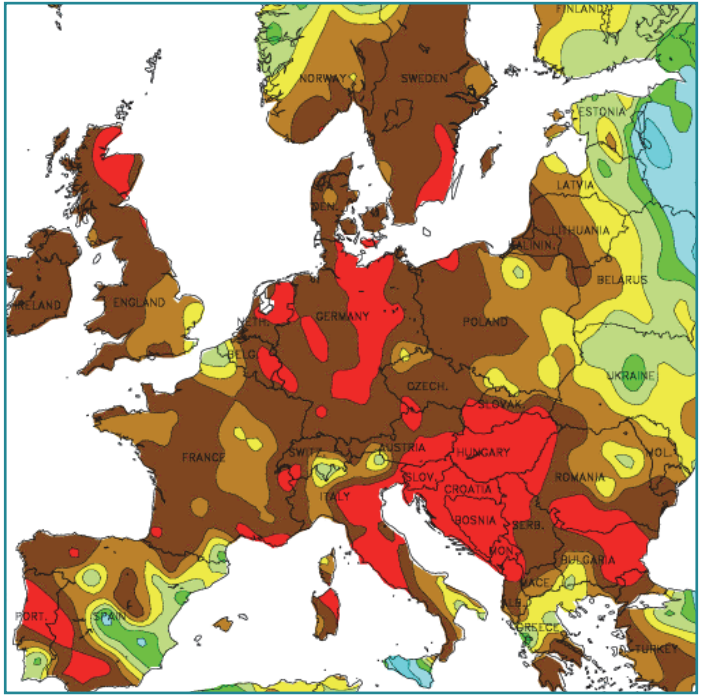
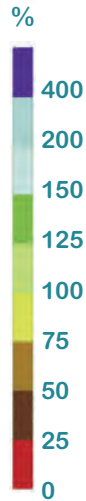
ATMOSPHERIC PRESSURE

March mean sea level pressure values ranged from around 1024 hPa in the Northwest to 1028 hPa in the Southeast. The month's highest pressure value was 1041.0 hPa on the 10th at Valentia Observatory as high pressure centred over Europe, Southern England and Ireland. Lowest pressure values were recorded across the country on the 3rd as a low pressure system located itself off the Northwest coast. Belmullet recording the lowest value for March at this time with 998.3 hPa.



MONTHLY MEAN MSL PRESSURE, BASED ON 1200 UTC VALUES

**MARCH RAINFALL**  
(PERCENTAGE OF 1961-1990 NORMAL)



**MARCH MEAN TEMPERATURE**  
(DIFFERENCE FROM 1961-1990 NORMAL)

DATA SUPPLIED BY NOAA  
CLIMATE PREDICTION CENTRE,  
US DEPARTMENT OF COMMERCE

Exceptional warmth affected a large portion of the U.S. throughout most of March 2012. The source responsible for the summer-like temperatures felt across most of the eastern half of the U.S. was an upper-level high pressure system that stalled over the eastern United States. This weather pattern allowed for warm air from the south flow towards the northern areas of the U.S., resulting in warmer-than-average temperatures. Several locations across the northern U.S. observed temperatures over 21°C, with some locations registering maximum temperatures over 27°C. The extraordinary warm spell resulted in nearly 8,000 daily records for highest maximum temperatures and over 7,000 daily records for highest minimum temperatures during March 2012, nearly double the broken records experienced during the August 2011 heat wave.

Temperature records were broken across Scotland. On March 25th, 2012, the temperature rose to 22.8°C in Aberdeenshire—the warmest March temperature on record for the country. The previous record of 22.2°C was set in 1957 and again in 1965. Nevertheless, the record set on March 25th only lasted for a day, as temperatures continued to rise, setting new national records during two consecutive days. The new national record of 23.6°C was set on March 27th, beating the previous national record of 23.2°C set on the previous day.

Days of heavy rainfall impacted the Australian states of Queensland, New South Wales, and Victoria near the beginning of March. Some locations in Victoria broke monthly rainfall records in just a single day on March 2nd. Wodonga recorded 88 mm of rainfall in the span of a few hours, which broke the previous March monthly record of 84 mm set in 1926.

Tropical Storm Irina skirted down the western coast of Madagascar during the first few days of March, killing at least 65 people, mostly in the town of Ifanadiana. The storm affected nearly 68,000 people and left more than 21,000 homeless. Tropical Cyclone Giovanna struck Madagascar just a few weeks earlier, and Irina destroyed roads and residences already weakened by the effects of Giovanna.

**GLOBAL WEATHER HIGHLIGHTS OF THE MONTH**

