

# Monthly Weather Bulletin

No. 300  
APRIL 2011



During the fine weather over Easter weekend, a racer competes in the third stage of the Rás Mumhan Race around the roads of Valentia Island, County Kerry (picture courtesy Irish Examiner)

## WARM, DRY AND SUNNY AFTER UNSETTLED START

After a wet start, most of April was dry and sunny with above normal temperatures. Mean air temperatures for the month of between 10°C and 12°C were around three degrees higher than normal and it was the warmest April on record at most stations. At the long-term stations of Malin Head and Valentia Observatory it was the

warmest April in over a century of record, but in some eastern areas it was not as warm as April 2007. Highest temperatures this month were recorded mainly on the 10th and during the period 20th to 22nd, when daily maximum values rose above 20°C. These were the highest April values for at least eight years in many places and



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**Celebrating 25 years of the Weather Bulletin**



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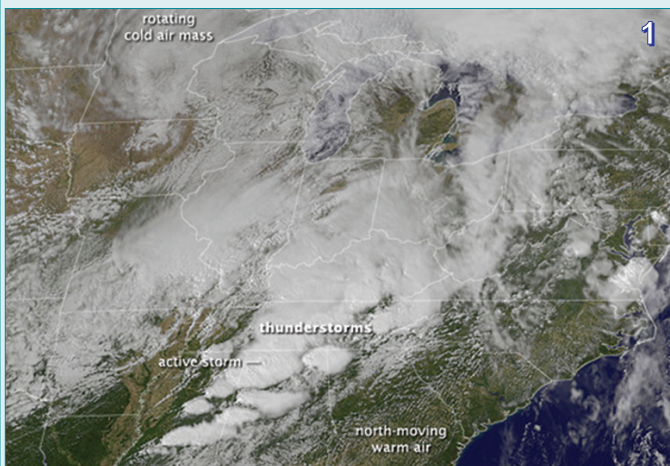
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Notes on the tables and map showing location of stations appear in January issue

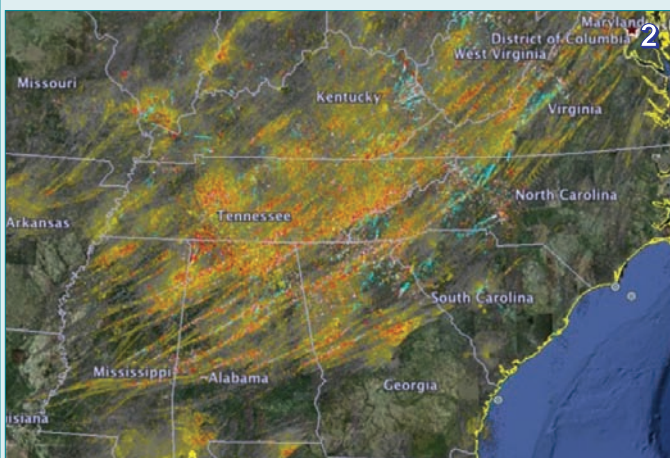
Malin Head's maximum of 20.8°C on the 22nd was the highest recorded for April since the station opened. Most stations recorded between three and 14 ground frosts during the month, around average for the time of year, but with little frost observed near the Atlantic coast. Rainfall accumulations were below average at most stations this month, receiving 40% to 90% of normal, but totals were above average

for some stations in the west and northwest. Almost all of the month's rainfall fell during the first half, with heavy falls during the first week, some with thunder. Most stations recorded between four and nine wetdays during the month (days with 1mm or more rainfall), around half of the normal number for April of between 10 and 14 wetdays. Sunshine totals were above normal across the country, with highest

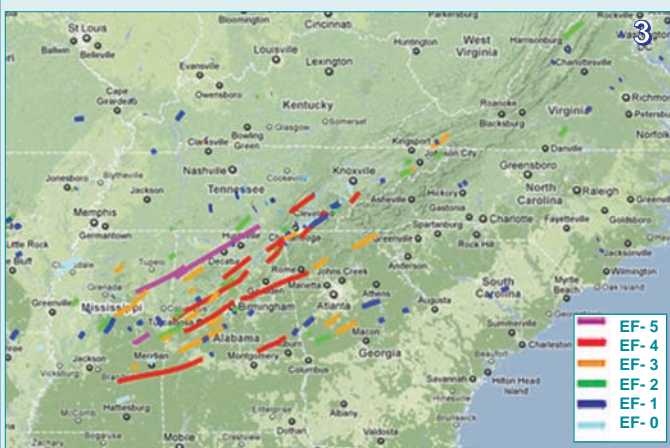
## TORNADO OUTBREAK IN THE UNITED STATES



April 2011 is ranked by the National Weather Service (NWS) in the United States as the most active tornado month on record with 875 reported. The previous record during any month was 542 tornadoes set in May 2003. There were an estimated 361 fatalities in April, the majority of which occurred during the tornadic events of April 27th and April 28th which saw the deadliest tornado outbreak in the United States since 1974. This resulted in more than 150 tornadoes being recorded and 250 people being killed in 6 states.



The image left (picture 1) from the geostationary GOES East satellite shows the storms at 13.45 UTC on April 27th. A relatively stable mass of cold air is visible as a swirl in the almost continuous cloud cover; the rotation evident to the north at the top centre of the satellite image. Meanwhile, moist air is pushing north and west from the Atlantic Ocean and the Gulf of Mexico - this shows up on the image as a pattern of small, low clouds over Georgia and South Carolina. The collision of two such air masses is, of itself, enough to generate severe weather but on April 27th the severity of the weather was amplified by the positioning of the jet stream. This narrow band of fast-moving air aloft blew north-eastwards between the two air masses, along the frontal boundary, and added extra vorticity, or spin tendency, to the atmospheric equation. Powerful small-scale circulation patterns generated in the lines of intense thunderstorms, giving rise to the so-called supercells which spawn tornadoes. The National Severe Storms Laboratory (NSSL) released a composite radar image (picture 2) showing the striated lines of intense thunderstorms and, within these, the very small-scale intense circulations (in red) which indicate the presence of tornadic activity. Picture 3 shows the preliminary tornado tracks, colour-coded for intensity, based on the NWS forecast office damage surveys.



The most severe tornado during the 27th to the 28th outbreak was at Hackleburg, Marion County, Alabama, which reported a violent tornado with a measurement of Enhanced Fujita Scale 5 (EF-5). Estimated maximum winds were of 370 to 390km per hour, a damage path length of 46km and maximum tornado width path of nearly 1.5km. The main indicators of Hackleburg having an EF-5 tornado was the tossing of vehicles 140 to 180 metres and the levelling of a well built brick home. Numerous people were reported injured and 78 people were confirmed dead.

All information and text are courtesy NOAA's National Weather Service and NASA Earth Observatory.

Picture one courtesy NASA Earth Observatory <http://earthobservatory.nasa.gov/>

Picture two courtesy NOAA's National Severe Storms Laboratory <http://www.nssl.noaa.gov/>

Picture three courtesy NOAA's National Weather Service Southern Region Headquarters <http://www.srh.noaa.gov/>

**monthly totals in the east; Dublin Airport and Casement Aerodrome both had their sunniest April day on record on the 28th, while Belmullet equalled the highest ever daily value for April with 14.1 hours on the 29th.**

**1st to 6th:** A series of Atlantic depressions located northwest of the Irish coastline brought a wet start to the month, especially in the west and northwest. Thunderstorms gave some locally heavy falls across the country. Winds were fresh to strong south to southwesterly, with gale gusts recorded in many locations. Some sunshine on most days, with temperatures slightly above normal.

**7th to 10th:** A high pressure system located over Europe brought a period of dry, warm and mostly sunny weather to the country with little or no rainfall. Daytime temperatures were well above normal, but with slight ground frost recorded on some nights.

**11th to 14th:** A return to unsettled weather with widespread showers and prolonged periods of rain, heaviest on the 13th. Temperatures returned to near normal

values, with strong southwest to westerly winds at times; gale gusts were recorded on most days.

**15th to 30th:** This period was dominated by high pressure close to Ireland, giving mostly dry and sunny conditions, with highest temperatures of the month being recorded in the period 20th to the 22nd almost everywhere. Small amounts of rainfall also fell on a number of days, with thunderstorms experienced in the west and northwest on the 21st and 22nd. Winds were light for most of the period.

**Wind and elements:** Mean windspeeds for the month were near normal, varying between 6 and 13 knots generally (*11 and 24km/h*). The strongest winds were recorded on the 1st, 4th and 11th with the month's highest gust of 54 knots (*100km/h*) at Belmullet on the 1st. Thunderstorms were most widespread during the first week, especially on the 1st and 2nd, and the period 21st to 22nd. Hail was observed only on the 2nd, 3rd and 11th. Light winds experienced between the 7th and 10th led to fog being reported in some areas.

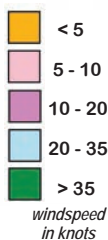
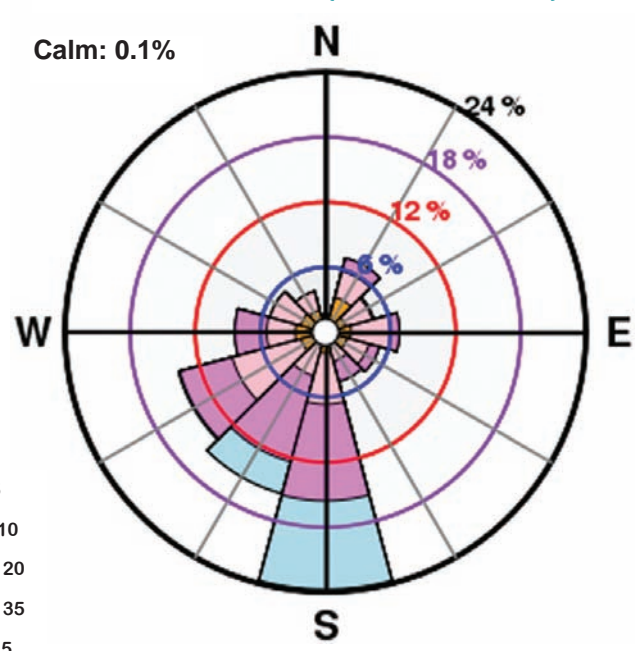
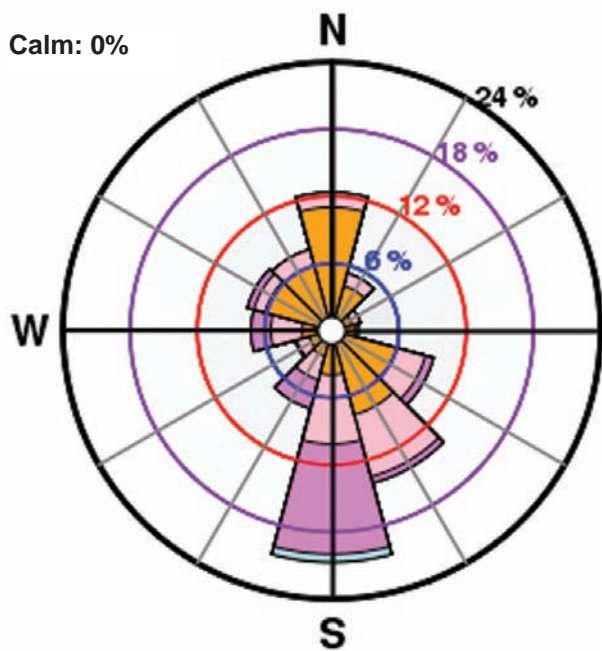
*On a calm morning, a small fishing boat is surrounded by evaporation fog on the sea at Tralee Bay, Co. Kerry (picture courtesy Irish Examiner)*



County / Station	WIND (KNOTS)						ELEMENTS							
	Mean speed	Max. dir.	10-min. speed	mean date/hour	Max. Gust dir.	speed date/time	Days with gales	gale gusts	Hours with gale gusts	Snow	Snow Lying	Hail	Thunder	Fog
<b>CO. CARLOW</b> Oak Park	5.9	180°	25	1/16	180°	37 1/1627	0	1	11					
<b>CO. CAVAN</b> Ballyhaise	6.0	220°	21	4/13	230°	34 4/1503	0	1	5					
<b>CO. CLARE</b> Shannon Airport	7.4	170°	28	1/10	170°	37 1/0926	0	1	5	0	0	1	0	3
<b>CO. CORK</b> Roche's Point	9.9	200°	32	4/09	200°	40 4/0920	0	5	65					
Cork Airport	8.3	210°	27	4/23	210°	39 4/2336	0	4	12	0	0	0	0	9
<b>CO. DONEGAL</b> Malin Head	12.6	180° 110°	33 33	4/09 30/05	180°	49 4/0757	0	9	73	0	0	0	0	0
<b>CO. DUBLIN</b> Dublin Airport	8.9	280°	28	11/14	290°	40 11/1532	0	4	16	0	0	2	1	1
Casement	8.5	190°	32	1/10	200°	45 1/0929	0	5	30	0	0	1	1	1
<b>CO. KERRY</b> Valentia Observatory	7.0	210°	25	4/23	200°	38 4/2147	0	3	14	0	0	0	0	4
<b>CO. MAYO</b> Belmullet	10.6	180°	36	4/06	190°	54 1/1058	2	9	73	0	0	0	1	1
Knock Airport	8.8	190°	27	1/12	190°	41 1/1124	0	4	14	0	0	2	0	5
<b>CO. TIPPERARY</b> Gurteen	7.5	190°	25	1/11	280°	40 11/1449	0	4	15					
<b>CO. WESTMEATH</b> Mullingar	5.8	180°	19	1/10	260°	32 11/1303	0	0	2					
<b>CO. WEXFORD</b> Johnstown Castle	6.4	210°	20	5/00	210°	34 4/2246	0	1	3					

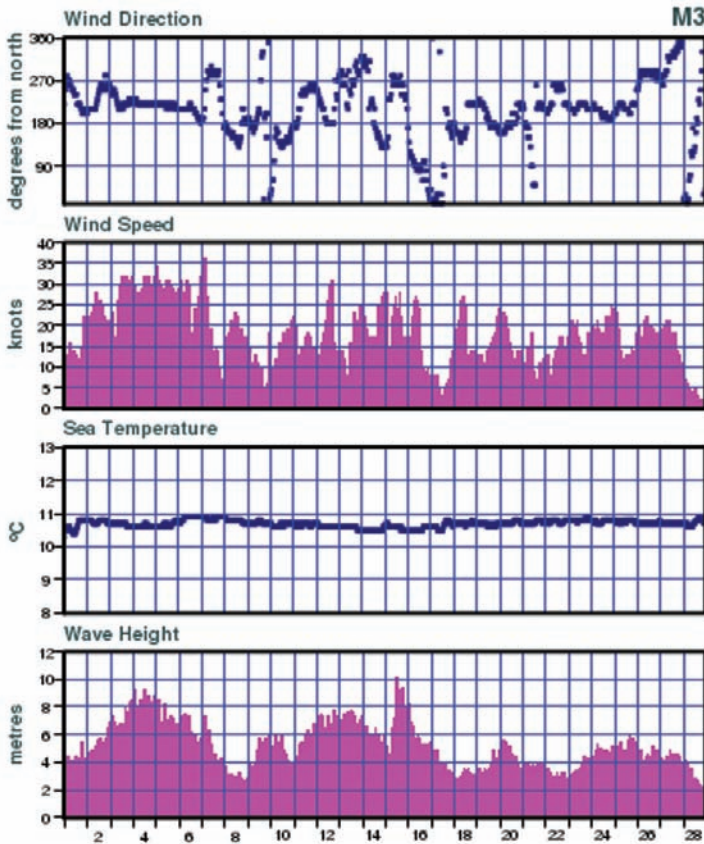
Belmullet

Carlow (Oak Park)



PERCENTAGE FREQUENCY OF WIND DIRECTION

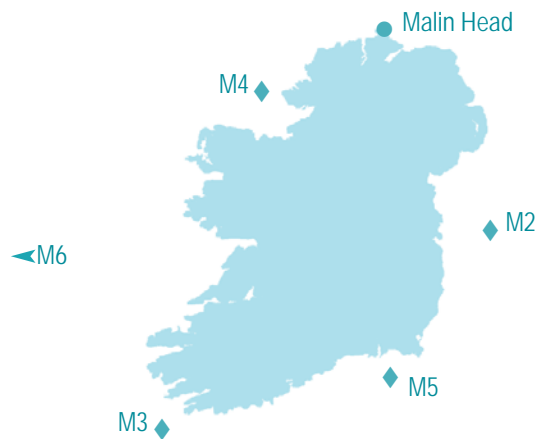
### MARINE OBSERVATIONS FROM IRISH MARINE DATA BUOY NETWORK



Hourly wind and wave conditions at M3 (51.2°N, 10.5°W)

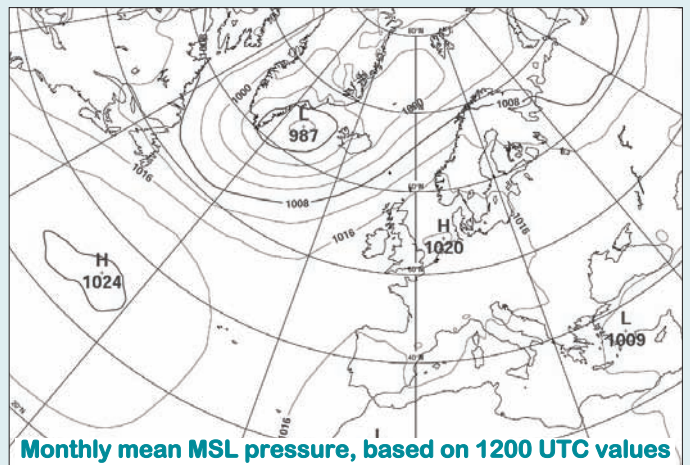
Buoy	Sea surface temp. (°C)	Mean wind speed (knots)	Max. 10-min wind (knots)	Mean wave height (m.)	Max. wave height (m.)
M2		not available	available		
M3	11.7	12.8	29	2.8	5.5
M4	10.7	15.8	35	n/a	n/a
M5	10.5	10.8	27	1.5	4.2
M6	10.9	not available	available		
Malin Head	9.3				

#### Summary of Mean Monthly Values

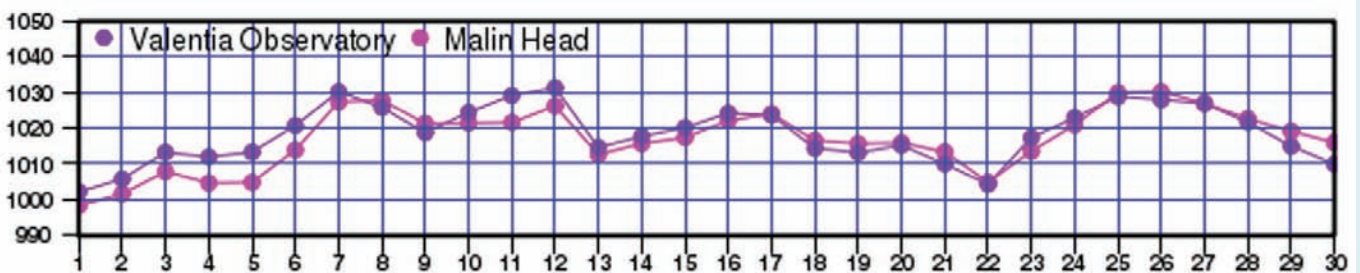


### MEAN ATMOSPHERIC PRESSURE

Mean pressure values for the April were between 1016hPa and 1018hPa which is just slightly above normal for the time of year. The month was mainly dominated by high pressure, however, at the start of the month Atlantic depressions affected the country resulting in the lowest pressure of 996.0hPa being recorded at Malin Head on the 1st. Pressure then rose well above average during the second week recording the month's highest pressure value of 1034.4hPa at Valentia Observatory on the 12th.



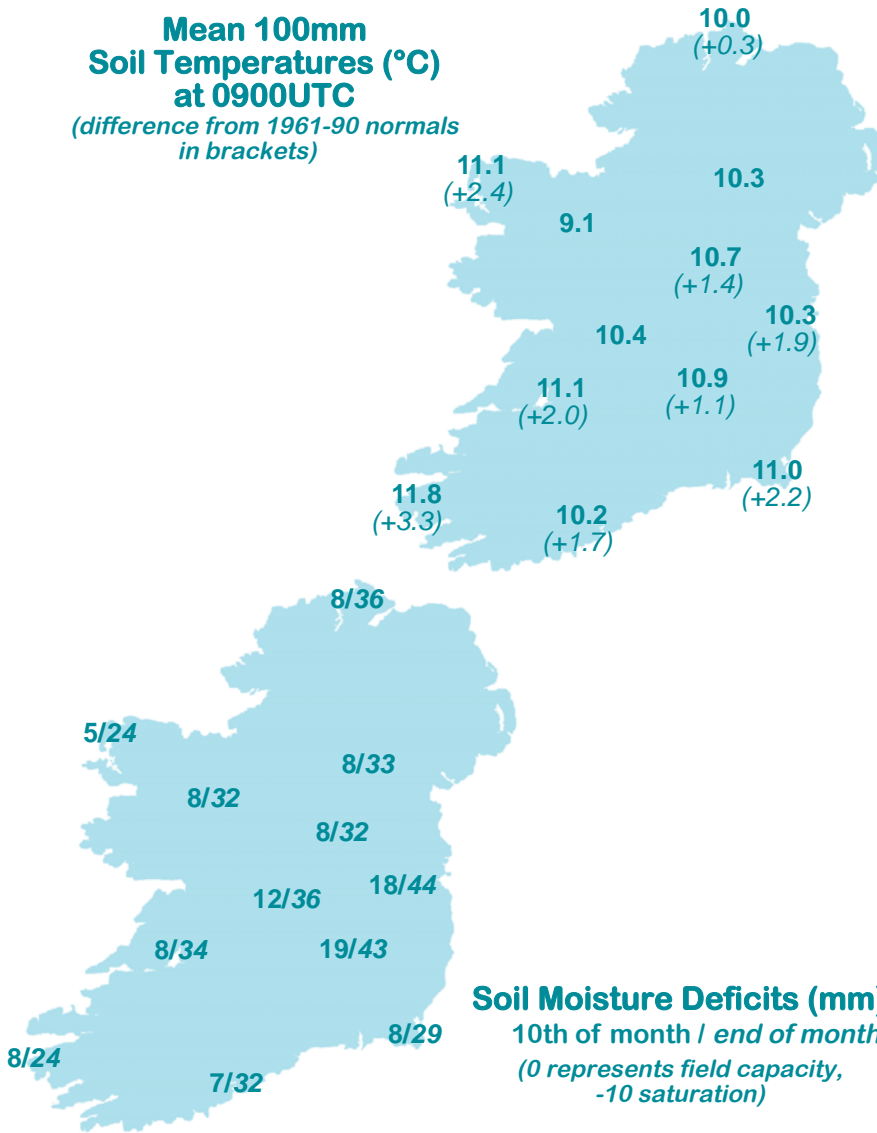
Monthly mean MSL pressure, based on 1200 UTC values



Mean daily Mean Sea Level pressure (hPa)

**Mean 100mm Soil Temperatures (°C) at 0900UTC**

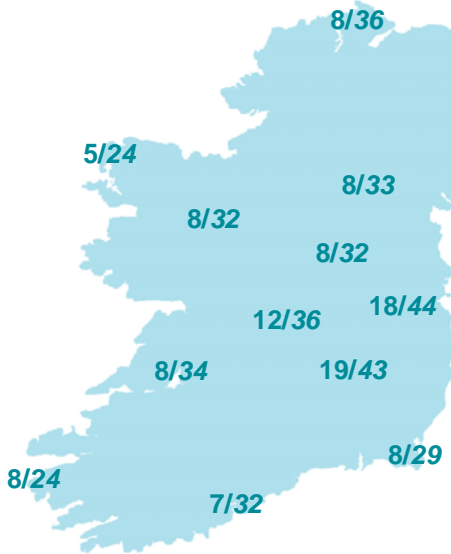
(difference from 1961-90 normals in brackets)



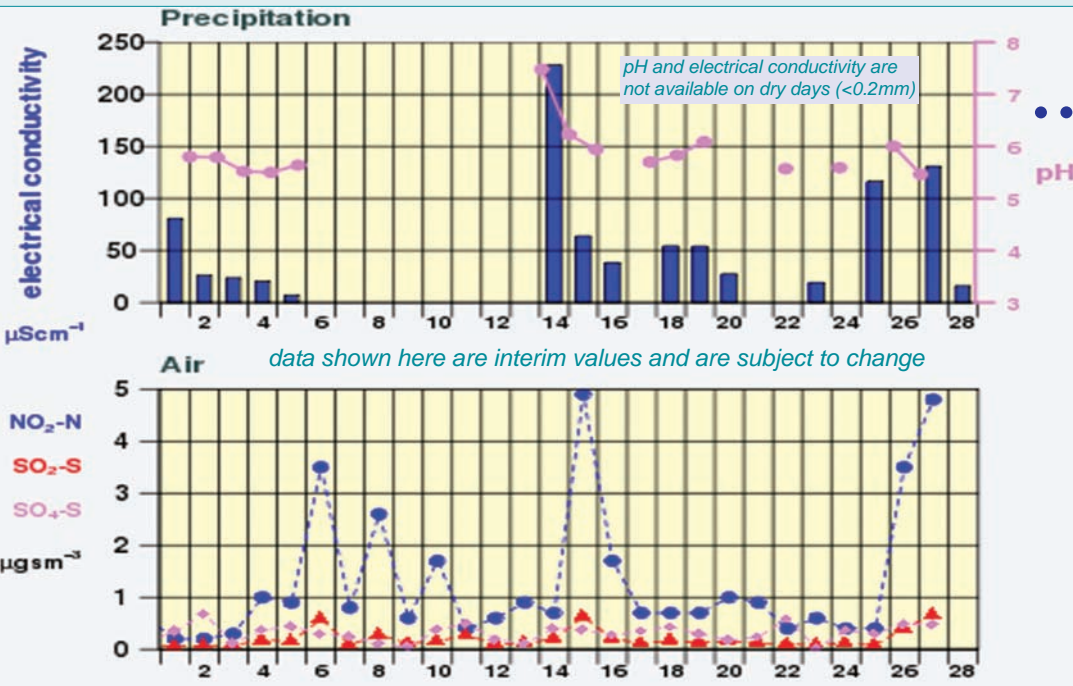
**Soil Temperatures at 0900UTC**

County/ Station	°C		
	100mm	200mm	300mm
<b>CO. CARLOW</b>			
CARLOW (OAK PARK)	10.9	10.9	11.0
<b>CO. CAVAN</b>			
BALLYHAISE	10.3	10.6	10.8
CAVAN (LORETO COLLEGE)			
<b>CO. CLARE</b>			
SHANNON AIRPORT	11.1	11.4	11.8
CARRON	11.0		11.3
<b>CO. CORK</b>			
ROCHE'S POINT	11.1	11.1	11.5
FERMOY (MOOREPARK)	10.9	11.0	11.5
CORK AIRPORT	10.2	10.4	10.9
SHERKIN ISLAND	11.4	11.4	11.3
BALLINCURRIG (PEAFIELD)	9.9	9.7	11.0
<b>CO. DONEGAL</b>			
MALIN HEAD	10.0	10.4	10.5
<b>CO. DUBLIN</b>			
DUBLIN (PHOENIX PARK)	10.9	11.4	11.2
DUBLIN AIRPORT	10.0	10.1	10.7
CASEMENT AERODROME	10.3	10.5	10.9
<b>CO. KERRY</b>			
VALENTIA OBSERVATORY	11.8	12.2	12.9
<b>CO. LIMERICK</b>			
MOUNTRUSSELL	10.4	11.2	
<b>CO. MAYO</b>			
BELMULLET	11.1	12.1	12.7
STRAIDE	11.0		
KNOCK AIRPORT	9.1	9.7	10.2
<b>CO. MEATH</b>			
WARRENTOWN	10.1	10.8	11.7
<b>CO. TIPPERARY</b>			
GURTEEN	10.4	10.5	10.9
FETHARD (PARSONSHILL)	10.2	11.0	
<b>CO. WATERFORD</b>			
DUNGARVAN (CARRIGLEA)		11.1	11.5
<b>CO. WESTMEATH</b>			
MULLINGAR	10.7	10.8	11.3
<b>CO. WEXFORD</b>			
JOHNSTOWN CASTLE	11.0	10.9	11.2
JOHN F. KENNEDY PARK	11.2	11.4	12.0
CLONROCHE (KNOXTOWN)	10.9	11.3	11.1
<b>CO. WICKLOW</b>			
ASHFORD (CRONYKEERY)	11.0	11.1	

**Soil Moisture Deficits (mm)**  
10th of month / end of month  
(0 represents field capacity, -10 saturation)



**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.

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	13.2	-	3	2	15.9	5.3	10.6	-	0.7	12	0	63	19	0.0	12	0	9.5	10.7	68.8	-
(Peafield)	21-end	2.4	-	4	0	18.0	6.4	12.2	-	3.4	29	0	78	31	2.4	29	0	11.0	12.4	78.9	-
	<b>month</b>	<b>25.4</b>	<b>-</b>	<b>12</b>	<b>6</b>	<b>16.3</b>	<b>6.0</b>	<b>11.2</b>	<b>-</b>	<b>0.7</b>	<b>12</b>	<b>0</b>	<b>205</b>	<b>68</b>	<b>0.0</b>	<b>12</b>	<b>0</b>	<b>9.9</b>	<b>11.0</b>	<b>189.3</b>	<b>-</b>
<b>Co. Donegal</b>	1-10	76.7	-	7	7	15.5	7.4	11.5	-	0.7	8	0	71	23	-2.5	8	1	-	-	-	-
Glenties	11-20	16.3	-	5	4	14.9	6.1	10.5	-	2.1	12	0	62	18	-1.4	12	2	-	-	-	-
	21-end	2.9	-	3	1	18.5	6.8	12.7	-	2.5	29	0	83	35	-2.3	29	2	-	-	-	-
	<b>month</b>	<b>95.9</b>	<b>118</b>	<b>15</b>	<b>12</b>	<b>16.3</b>	<b>6.8</b>	<b>11.6</b>	<b>4.1</b>	<b>0.7</b>	<b>8</b>	<b>0</b>	<b>216</b>	<b>76</b>	<b>-2.5</b>	<b>8</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Co. Kerry</b>	1-10	31.6	-	7	5	16.4	8.6	12.5	-	5.3	3	0	81	29	3.9	4	0	-	-	41.6	-
Ardfert	11-20	6.8	-	4	2	16.1	6.3	11.2	-	3.4	17	0	68	21	1.9	17	0	-	-	64.6	-
	21-end	4.5	-	3	1	18.9	7.1	13.0	-	4.2	23	0	86	37	2.1	23	0	-	-	76.6	-
	<b>month</b>	<b>42.9</b>	<b>-</b>	<b>14</b>	<b>8</b>	<b>17.1</b>	<b>7.3</b>	<b>12.2</b>	<b>3.8</b>	<b>3.4</b>	<b>17</b>	<b>0</b>	<b>234</b>	<b>87</b>	<b>1.9</b>	<b>17</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>182.8</b>	<b>-</b>
<b>Co. Monaghan</b>	1-10	11.7	-	6	4	16.3	6.1	11.2	-	1.4	8	0	70	25	-2.5	8	4	-	-	-	-
Carrickmacross	11-20	10.4	-	4	2	14.7	4.7	9.7	-	0.6	12	0	56	14	-3.9	12	5	-	-	-	-
	21-end	0.0	-	0	0	16.5	5.9	11.2	-	1.4	29	0	70	23	-2.2	29	3	-	-	-	-
	<b>month</b>	<b>22.1</b>	<b>42</b>	<b>10</b>	<b>6</b>	<b>15.8</b>	<b>5.6</b>	<b>10.7</b>	<b>-</b>	<b>0.6</b>	<b>12</b>	<b>0</b>	<b>195</b>	<b>61</b>	<b>-3.9</b>	<b>12</b>	<b>12</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Co. Waterford</b>	1-10	5.8	-	4	2	14.5	6.7	10.6	-	2.1	4	0	63	16	0.8	4	0	-	10.5	39.9	-
Dungarvan	11-20	13.3	-	4	3	15.4	6.4	10.9	-	2.0	12	0	66	19	-0.3	12	1	-	11.3	69.7	-
	21-end	3.2	-	3	1	17.5	6.5	12.0	-	1.3	29	0	77	29	-1.0	29	1	-	12.7	83.6	-
	<b>month</b>	<b>22.3</b>	<b>-</b>	<b>11</b>	<b>6</b>	<b>15.8</b>	<b>6.5</b>	<b>11.2</b>	<b>2.7</b>	<b>1.3</b>	<b>29</b>	<b>0</b>	<b>206</b>	<b>65</b>	<b>-1.0</b>	<b>29</b>	<b>2</b>	<b>-</b>	<b>11.5</b>	<b>193.2</b>	<b>127</b>
<b>Co. Wexford</b>	1-10	4.7	-	3	2	14.1	6.7	10.4	-	2.2	4	0	61	14	1.6	4	0	10.0	10.7	32.2	-
J.F.K. Park	11-20	13.6	-	3	3	14.7	7.5	11.1	-	1.2	12	0	68	19	1.0	12	0	10.8	11.9	70.9	-
	21-end	0.1	-	0	0	16.9	7.9	12.4	-	3.8	24	0	80	29	4.5	28	0	12.9	13.5	85.4	-
	<b>month</b>	<b>18.4</b>	<b>29</b>	<b>6</b>	<b>5</b>	<b>15.2</b>	<b>7.4</b>	<b>11.3</b>	<b>3.2</b>	<b>1.2</b>	<b>12</b>	<b>0</b>	<b>208</b>	<b>63</b>	<b>1.0</b>	<b>12</b>	<b>0</b>	<b>11.2</b>	<b>12.0</b>	<b>188.5</b>	<b>114</b>
<b>Co. Wicklow</b>	1-10	10.8	-	6	3	15.9	5.8	10.9	-	1.2	3	0	67	22	-4.7	4	4	10.3	-	56.5	-
Ashford	11-20	6.3	-	4	3	14.4	4.8	9.6	-	0.8	12	0	54	13	-4.2	12	6	10.9	-	58.0	-
	21-end	0.5	-	2	0	15.5	5.6	10.6	-	1.0	28	0	64	19	-3.8	28	6	11.9	-	86.1	-
	<b>month</b>	<b>17.6</b>	<b>-</b>	<b>12</b>	<b>6</b>	<b>15.3</b>	<b>5.4</b>	<b>10.4</b>	<b>-</b>	<b>0.8</b>	<b>12</b>	<b>0</b>	<b>185</b>	<b>54</b>	<b>-4.7</b>	<b>4</b>	<b>16</b>	<b>11.0</b>	<b>-</b>	<b>200.6</b>	<b>-</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	7.7	-	0	27
Valentia Obs.	11-20	20.1	-	0	9
	21-end	22.0	10	10	-
	<b>month</b>	<b>49.8</b>			
<b>Co. Wexford</b>	1-10	3.2	-	0	6
Johnstown Castle	11-20	15.3	-	0	2
	21-end	n/a	-	-	-
	<b>month</b>	<b>n/a</b>			

MONTHLY EVAPORATION (MM) FROM CLASS A PAN			
County	Station	Monthly Rainfall (mm)	Monthly Evaporation (mm)
<b>Kerry</b>	Valentia Observatory	66.1	58.6
<b>Kerry</b>	North Kerry Landfill	74.2	55.0
<b>Mayo</b>	Newport (Furnace)	89.2	62.7
<b>Offaly</b>	Derrygreenagh	32.8	64.5
<b>Waterford</b>	Dungarvan (Carriglea)	22.3	58.6
<b>Wexford</b>	J.F.K. Park	18.4	74.3

Station	P.E. (Penman)	GLOBAL SOLAR RADIATION (MJ/sq.m.)			
	total(mm)	1st-10th	11th-20th	21st-end	Total
<b>Co. Carlow</b>					
Carlow (Oak Park)*	58	112.82	133.73	160.76	407.31
<b>Co. Cavan</b>					
Ballyhaise*	61	125.42	138.99	169.34	433.75
<b>Co. Clare</b>					
Shannon Airport	63	global solar radiation values for stations marked * are provisional			
<b>Co. Cork</b>					
Cork Airport	57				
Roche's Point*		122.89	165.43	180.04	468.36
<b>Co. Donegal</b>					
Malin Head	62	119.01	136.62	190.27	445.90
<b>Co. Dublin</b>					
Dublin Airport	61	31.47	138.62	172.27	442.36
Casement Aerodrome	67				
<b>Co. Kerry</b>					
Valentia Obs.	62	94.40	134.75	189.84	418.99
<b>Co. Mayo</b>					
Belmullet	56	106.26	143.01	159.13	408.40
Knock Airport	58				
<b>Co. Tipperary</b>					
Curteen*	57	122.65	n/a	161.05	n/a
<b>Co. Westmeath</b>					
Mullingar*	60	119.82	148.05	162.56	430.43
<b>Co. Wexford</b>					
Johnstown Castle*	54	98.48	131.27	163.77	393.52

**Friday 1st:** Rain continued in the western half of the country during the early hours, generally dying out around dawn. Staying dry for most of the day with overcast conditions and just a few sunny breaks. A band of heavy rain began to spread into the west in the evening. Winds; moderate, generally southerly.

**Rainfall:** nil to 27mm, heaviest at Claremorris, nil in the east  
**Temperature:** max. 11°C to 17°C, min. 5°C to 12°C, no ground frost  
**Sunshine:** nil to trace generally, >1 hour at Shannon Airport

**Saturday 2nd:** A band of rain, already through the west, continued eastwards during the early morning, heaviest falls in the west. Heavy showers developed during the morning and continued countrywide during the afternoon. Some of the showers were of hail and thunder. Good sunny spells everywhere. Winds; moderate, south to southwesterly in direction, becoming light by evening.

**Rainfall:** <1 to 13mm, heaviest at Malin Head, <1mm at Belmullet  
**Temperature:** max. 12°C to 15°C, min. 4°C to 7°C, ground temperatures down to -1°C at Mullingar  
**Sunshine:** 5 to 10 hours, sunniest at Belmullet, 5 hours at Valentia

**Sunday 3rd:** Showers overnight in the west and north, dry elsewhere with ground frost in places. Good sunny spells in all areas. Showers, mainly in the west, continued on and off during the day. Generally dry by evening. Winds; west to southwesterly, moderate with gusts in the north and northwest.

**Rainfall:** trace to 3mm, heaviest at Valentia, trace at Knock Airport  
**Temperature:** max. 10°C to 12°C, min. 3°C to 6°C, ground temperatures down to -2°C at Carlow (Oak Park)  
**Sunshine:** 7 to 10 hours, sunniest at Valentia, 7 hours at Casement Aerodrome

**Monday 4th:** Rain in the west overnight moved eastwards during the early hours, followed by showers. A further band of rain approached the west coast in the late afternoon and moved eastwards during the evening, bringing rain, heavy at times everywhere. Mild with sunny spells between the showers. Winds; moderate to strong and gusty, south to southwesterly in direction.

**Rainfall:** 2 to 22mm, heaviest at Claremorris, 2mm at Carlow (Oak Park)  
**Temperature:** max. 10°C to 16°C, min. 3°C to 9°C, ground temperatures down to -1°C at Johnstown Castle  
**Sunshine:** nil to 5 hours, sunniest at Dublin Airport, nil at Cork Airport

**Tuesday 5th:** Cloudy with rain at first, heavy and persistent in places. Mild. Dry towards dawn, but soon more rain moved in over the west coast and gradually moved eastwards during the morning, becoming confined to the northern half of the country. Rain died out during the early afternoon. Another band of rain moved into the west by evening. Mostly cloudy with just a few hours of sunshine in the east. Winds; moderate to strong, southwesterly.

**Rainfall:** 1 to 11mm, heaviest at Claremorris, 1mm at Roche's Point  
**Temperature:** max. 12°C to 18°C, min. 10°C to 13°C, no ground frost  
**Sunshine:** nil to 2 hours, sunniest in the east, nil in the south and west

**Wednesday 6th:** A band of rain which covered the centre of the country moved northwards overnight and cleared the north coast shortly after daybreak. Early morning mist cleared quickly. Bright and sunny during the afternoon, apart from the northwest. Light rain in the north overnight. Winds; southwesterly, light to moderate with gusts in the north and northwest.

**Rainfall:** nil to 14mm, heaviest at Malin Head, nil at Gurteen  
**Temperature:** max. 11°C to 19°C, min. 7°C to 12°C, no ground frost  
**Sunshine:** nil to 6 hours, sunniest at Shannon Airport, nil at Belmullet

**Thursday 7th:** Patchy drizzle in the west ceased by morning to give a bright start to the day in most parts of the country. This good sunshine and mild weather continued into the afternoon with the best of the sunshine in the west. The dry weather continued into the evening with some cloud remaining in the southeast. Winds; light, southwesterly.

**Rainfall:** nil to <1mm  
**Temperature:** max. 11°C to 17°C, min. 4°C to 11°C, ground temperatures down to -2°C at Claremorris  
**Sunshine:** 2 to 10 hours, sunniest at Belmullet, 2 hours at Valentia

**Friday 8th:** Cool overnight with frost and fog in many areas, which burned off quickly during the morning. Most parts had prolonged spells of sunshine. Quite warm apart from northern and eastern coasts, where there were onshore breezes. Winds; light, southeasterly or variable in direction.

**Rainfall:** nil to trace  
**Temperature:** max. 11°C to 21°C, min. 0°C to 9°C, ground temperatures down to -3°C at Ballyhaise

**Sunshine:** 4 to 11 hours, sunniest at Dublin Airport, 4 hours at Shannon Airport

**Saturday 9th:** Dry overnight and throughout the day in most areas. Good sunshine in the east, cloudier further west. Warm by the afternoon, apart from south and east coasts, where onshore breezes held temperatures back. Winds; light southeasterly, increasing moderate in the early afternoon.

**Rainfall:** nil to trace  
**Temperature:** max. 13°C to 20°C, min. 4°C to 11°C, no ground frost  
**Sunshine:** trace to 7 hours, sunniest at Dublin Airport, trace at Valentia

**Sunday 10th:** Generally dry during the morning apart from some drizzle on western coasts. The afternoon was dry and warm with good sunny spells, mainly in the east. The evening and night saw some rain and drizzle along northwest coasts. Winds were light and variable in direction.

**Rainfall:** nil to trace generally, 3mm at Belmullet  
**Temperature:** max. 14°C to 20°C, min. 7°C to 11°C, no ground frost  
**Sunshine:** 2 to 10 hours, sunniest in the east, 2 hours at Valentia

**Monday 11th:** Rain and drizzle in the west early in the period spread quickly eastwards, clearing the east coast by early morning. Showers followed on from the west, affecting most parts during the day. Good sunshine in all areas. The showers were mainly confined to the west coast by evening. Winds; moderate to strong and gusty, west to northwesterly in direction.

**Rainfall:** trace to 6mm, heaviest at Mullingar, trace at Cork Airport  
**Temperature:** max. 11°C to 14°C, min. 2°C to 8°C, ground temperatures down to -3°C at Carlow (Oak Park)  
**Sunshine:** 7 to 12 hours, sunniest at Cork Airport, 7 hours at Knock Airport

**Tuesday 12th:** Showery outbreaks of rain in the northwest overnight, mainly dry elsewhere. There were good sunny spells in many areas, however, the southwest remained dull with cloud thickening as a front approached the coast during the afternoon. Rain began to affect the southwest during the early evening and moved eastwards to give rain almost everywhere except eastern areas, which remained dry. Winds; westerly, moderate to strong and gusty.

**Rainfall:** nil to 7mm, heaviest at Belmullet nil at Dublin Airport  
**Temperature:** max. 10°C to 13°C, min. 1°C to 7°C, ground temperatures down to -5°C at Carlow (Oak Park)  
**Sunshine:** <1 to 8 hours, sunniest at Dublin Airport, <1 hour at Valentia

**Wednesday 13th:** Rain, gradually spreading eastwards across the country with heavy bursts in parts of the midlands and west. The front which moved into the Irish Sea around dawn was followed by showers, some heavy at times. Showers continued throughout the afternoon in the west, while further east it was dry with some good sunny spells. Generally dry throughout by late evening. Winds; south to southwesterly, moderate to strong and gusty.

**Rainfall:** 2 to 18mm, heaviest at Valentia, 2mm at Malin Head  
**Temperature:** max. 10°C to 16°C, min 4°C to 9°C, no ground frost  
**Sunshine:** trace to 8 hours, sunniest at Casement Aerodrome, trace at Valentia

**Thursday 14th:** Mild and mostly dry overnight with patchy drizzle and some mist and fog in places. A cloudy morning with mist and some patches of drizzle lingering, mainly in the east of the country. It brightened up during the afternoon with some good spells of sunshine, the best of these in the southwest. Conditions remained mild and mostly dry into the evening and night with just a few spots of mist and drizzle in places. Winds; light, variable.

**Rainfall:** nil to 1mm, heaviest at Carlow (Oak Park)  
**Temperature:** max. 12°C to 14°C, min 6°C to 9°C, no ground frost  
**Sunshine:** nil to 7 hours, sunniest at Valentia, nil at Dublin Airport

**Friday 15th:** Mostly dry overnight with broken cloud and some drizzle and patchy fog along the east coast. The drizzle and fog cleared in the east during the morning and sunny spells developed. Some drizzle developed in the west but precipitation amounts were low. There were some good spells of sunshine also, with the best of these in the south and east. Cloud in the western half of the country moved eastwards during the evening, bringing some light drizzle with it into the night. Winds were light, southerly in direction.

**Rainfall:** nil to 1mm, heaviest at Valentia  
**Temperature:** max. 13°C to 15°C, min. 3°C to 9°C, ground temperatures down to -2°C at Gurteen  
**Sunshine:** 1 to 8 hours, sunniest at Casement Aerodrome, 1 hour at Belmullet



**Saturday 16th:** Misty overnight with some patchy drizzle or light rain in places. These conditions continued into the morning but brightened up shortly after daybreak. Some sunny spells developed during the afternoon with the best of these in the west. It remained cloudier in the east with some drizzle present. Generally dry overnight with fog in places Winds; light and variable.

**Rainfall:** nil to 1mm, heaviest at Gurteen

**Temperature:** max. 11°C to 15°C, min. 4°C to 9°C, ground temperatures down to -2°C at Gurteen

**Sunshine:** 2 to 10 hours, sunniest at Cork Airport, 2 hours at Belmullet

**Sunday 17th:** It was dry and calm overnight with dense fog patches developing in places. The fog cleared during the morning in most places and sunny spells developed. It was a bright afternoon with good spells of sunshine, mainly in the west. It continued dry into the evening and night with patches of mist and fog returning to parts of Leinster and Munster. Winds; light, variable.

**Rainfall:** nil to trace

**Temperature:** max. 10°C to 17°C, min 0°C to 7°C, ground temperatures down to -4°C at Casement Aerodrome

**Sunshine:** 5 to 12 hours, sunniest at Belmullet, 5 hours at Casement Aerodrome

**Monday 18th:** Dry overnight with light winds, with mist and fog also. The morning was mostly dry and sunny after the mist and fog cleared, but a bit cloudier on the east coast. Good sunshine in all areas during the afternoon. The night was dry with clear spells and mist returned to most places also. Winds were light and variable in direction.

**Rainfall:** nil

**Temperature:** max. 14°C to 18°C, min. 1°C to 8°C, ground temperatures down to -2°C at Mullingar

**Sunshine:** 6 to 13 hours, sunniest at Knock Airport, 6 hours at Dublin Airport

**Tuesday 19th:** Near calm conditions overnight with widespread mist and fog, and a slight ground frost in places. Misty and foggy during the early morning, however it brightened up by mid morning with good sunny spells developing in most areas, cloudier in southern parts. The afternoon was sunny with some mist also about. Dry overnight. Winds; light, variable.

**Rainfall:** nil

**Temperature:** max. 15°C to 20°C, min. 2°C to 11°C, ground temperatures down to -2°C at Casement Aerodrome

**Sunshine:** 4 to 12 hours, sunniest at Casement Aerodrome, 4 hours at Valentia

**Wednesday 20th:** Some rain along the west coast overnight, otherwise dry and clear with a widespread mist. Some rain again along southwestern coasts during the day, dry with good sunshine elsewhere. The evening and night again saw some rain in western parts, while remaining dry elsewhere with a widespread mist or haze. Winds; light and variable in direction.

**Rainfall:** nil to trace generally, 4mm at Belmullet

**Temperature:** max. 13°C to 21°C, min. 2°C to 11°C, ground temperatures down to -2°C at Casement Aerodrome

**Sunshine:** trace to 12 hours, sunniest at Dublin Airport, trace at Valentia

**Thursday 21st:** Rain in places to start, mainly in western areas. Mist and haze, particularly in the east. Any rain generally died out by dawn and there were good long sunny spells everywhere. It was very warm everywhere. Winds; light easterly, with haze, particularly along the east coast.

**Rainfall:** nil to trace generally, <1mm in the northwest

**Temperature:** max. 15°C to 23°C, min. 5°C to 10°C, no ground frost

**Sunshine:** 7 to 12 hours, sunniest at Dublin Airport, 7 hours at Knock Airport

**Friday 22nd:** Overnight showers affected many parts of the country but were well scattered. A cloudy start to the day over much of the country with showers continuing, some thundery in places. It continued cloudy into the afternoon with some thundery showers still affecting parts of the midlands and west. Broken cloud meant that sunny spells were intermittent. Generally dry by evening. Winds were light, southerly in direction.

**Rainfall:** nil to 2mm, heaviest at Valentia

**Temperature:** max. 13°C to 22°C, min. 6°C to 11°C, no ground frost

**Sunshine:** 2 to 8 hours, sunniest in the east, 2 hours at Belmullet

**Saturday 23rd:** It was mild and misty overnight with some rain and drizzle in the north and east. During the morning it brightened up with only a few showers in places. There were good spells of sunshine countrywide during the day. It remained dry and bright into the evening, and into the night it

became cooler with some mist developing. Winds; light, variable.

**Rainfall:** nil to trace generally, 2mm at Johnstown Castle

**Temperature:** max. 13°C to 16°C, min. 3°C to 8°C, ground temperatures down to -1°C at Mullingar

**Sunshine:** 8 to 13 hours, sunniest at Belmullet, 8 hours at Dublin Airport

**Sunday 24th:** Light rain and drizzle spread into the northwest and west during the early hours of the morning. The rain and drizzle continued moving eastwards during the morning but became progressively lighter and fizzled out altogether by late morning. The rest of the day was dry countrywide. Prolonged sunshine in the western half of the country, cloudier further east. Winds; light to moderate, west to northwesterly.

**Rainfall:** nil to 1mm, heaviest at Belmullet, nil in the east

**Temperature:** max. 12°C to 17°C, min. 3°C to 9°C, ground temperatures down to -2°C at Carlow (Oak Park)

**Sunshine:** 1 to 7 hours, sunniest at Valentia, 1 hour at Dublin Airport

**Monday 25th:** Dry overnight with mist in places and light winds. The morning was dry with some good sunny spells in parts of the country, cloudier along the east and southeast coast. The afternoon saw some rain along southwest coastal areas, but elsewhere dry with sunny spells. The evening and night again saw some rain in the extreme southwest, while dry with clear spells elsewhere. Winds; light, west to northwesterly.

**Rainfall:** nil to trace generally, 2mm at Valentia

**Temperature:** max. 12°C to 15°C, min. 6°C to 9°C, ground temperatures below zero at Malin Head

**Sunshine:** trace to 8 hours, sunniest at Belmullet, trace at Casement Aerodrome

**Tuesday 26th:** Rain spread from the southwest overnight, easing as it did. Some mist in parts. A few showers during the morning. The afternoon was mainly dry, with some sunny spells, the best of these in the midlands and west. Some mist in places after dark. Winds; light, easterly or variable.

**Rainfall:** nil to 1mm generally, 7mm at Valentia

**Temperature:** max. 11°C to 17°C, min. 5°C to 9°C, ground temperatures down to -1°C at Malin Head

**Sunshine:** 1 to 9 hours, sunniest at Knock Airport, 1 hour at Dublin Airport

**Wednesday 27th:** Cloudy along the west coast overnight with some rain in parts of Connacht. The morning was dry and sunny away from northwestern areas. The afternoon continued dry with more in the way of cloud over the midlands and west and good sunshine along the east coast. Dry during the evening with mist forming in places. Winds; light and variable in direction.

**Rainfall:** nil to <1mm generally, 4mm at Claremorris

**Temperature:** max. 14°C to 19°C, min. 2°C to 11°C, ground temperatures down to -2°C at Dublin Airport

**Sunshine:** trace to 12 hours, sunniest in the east, trace at Belmullet

**Thursday 28th:** A dry, warm and sunny day for the most part. Cloudy conditions along the west coast, uninterrupted sunshine elsewhere. Mist and fog in the west after dark, clear spells elsewhere. Winds; light, easterly.

**Rainfall:** nil

**Temperature:** max. 14°C to 19°C, min. 0°C to 9°C, ground temperatures down to -4°C at Dublin Airport

**Sunshine:** 3 to 14 hours, sunniest at Dublin Airport, 3 hours at Belmullet

**Friday 29th:** A beautiful sunny day everywhere, warmest in the west, cooler in the east and on south coasts due to freshening easterly breezes. Clear spells after dark and some mist or shallow fog in places. Winds; light to moderate, east to southeasterly in direction.

**Rainfall:** nil

**Temperature:** max. 14°C to 20°C, min. 0°C to 7°C, ground temperatures down to -4°C at Carlow (Oak Park)

**Sunshine:** 11 to 14 hours, sunniest at Belmullet, 11 hours at Dublin Airport

**Saturday 30th:** Dry overnight with clear spells in most areas. It became cloudy over the southern part of the country during the morning and isolated showers developed there. Good sunny spells in many places during the afternoon. The evening and night were mostly dry, apart from some showers in the south of the country. Winds; light to moderate, easterly.

**Rainfall:** nil to trace

**Temperature:** max. 15°C to 21°C, min. 6°C to 10°C, no ground frost

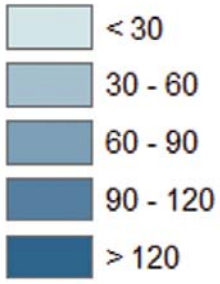
**Sunshine:** 7 to 12 hours, sunniest at Shannon Airport, 7 hours at Dublin Airport

## Above normal in the west; driest in the east

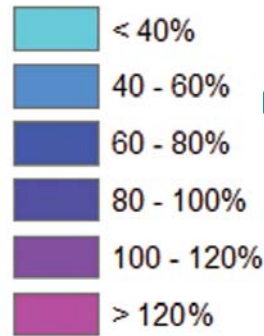
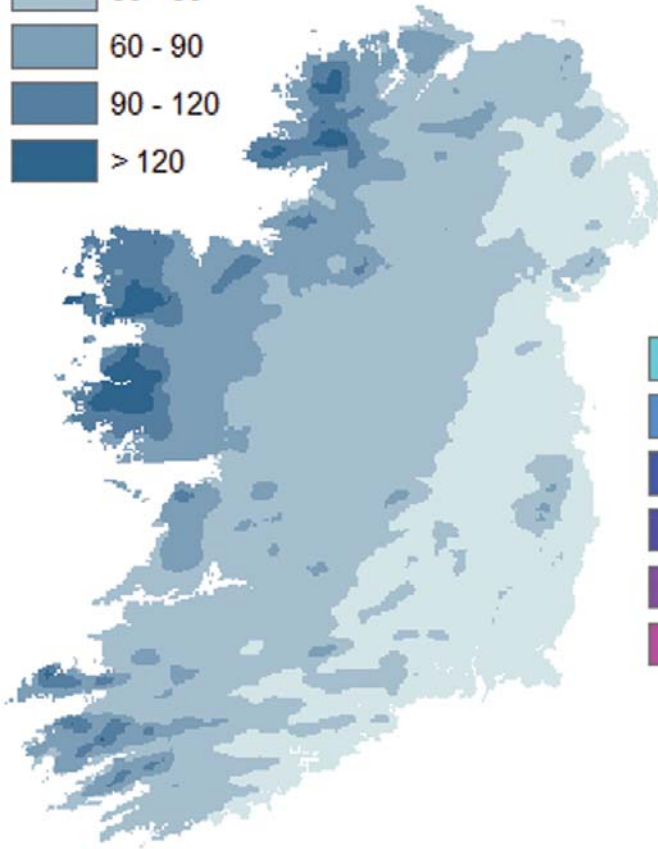
Majority of April's rainfall totals were below average for the time of year, except for parts of the west and northwest, which were well above average. Total rainfall amounts and percentage of normal values reflected this; the lowest rainfall total for April was recorded in the east at Dublin (Merrion Square) with 9.9mm and the highest total amount of 190mm, was recorded in the west at Delphi lodge II, Co. Mayo. Percentage of normal values ranged between 20% of average at Dublin (Merrion Square) and 129% at Belmullet.

Almost all of April's rainfall was recorded during the first half of the month with all stations recording their highest daily falls during this period. Maam Valley recorded the highest daily total of the month with 43.3mm during heavy showers on the 12th. There was a total of between three and 16 wetdays (*days with 1mm or more of rainfall*) recorded during April, with the majority of locations recording below the average number of wetdays of 10 to 14, especially in the east.

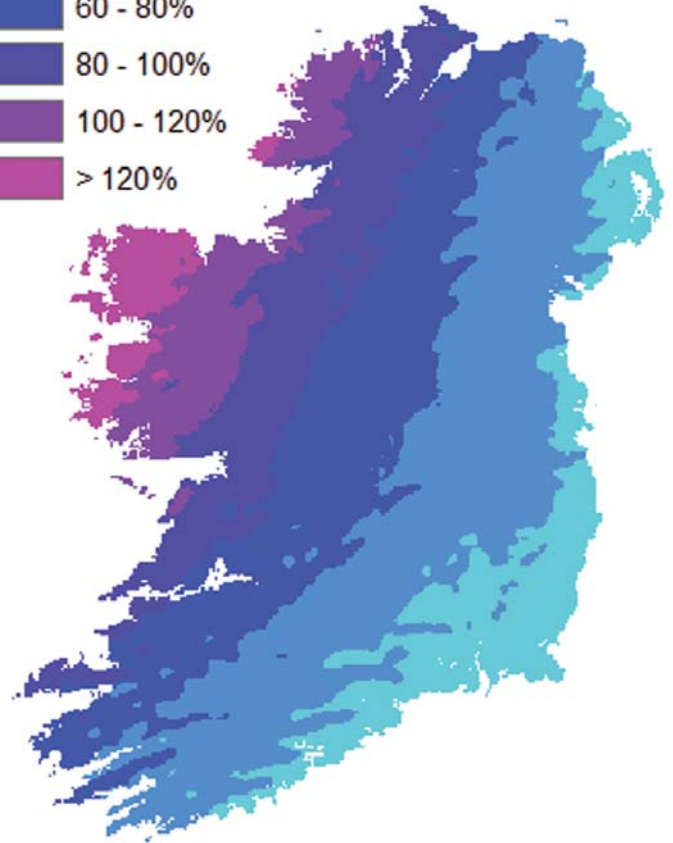
County/ Station	Total Amount (mm)	% of 1961-90 average	Most in		Number of		
			a day / date	date	Raindays (>0.2mm)	Wetdays (>1mm)	
<b>CO. CARLOW</b>							
CARLOW (OAK PARK)	19.4	40	4.1	12	10	7	
<b>CO. CAVAN</b>							
BALLYHAISE	37.1	64	9.2	12	12	7	
CAVAN (LORETO COLLEGE)	40.9		9.1	12	14	6	
<b>CO. CLARE</b>							
SHANNON AIRPORT	41.8	75	7.9	5	12	9	
CARRON	79.1	92	18.1	5	20	13	
<b>CO. CORK</b>							
ROCHE'S POINT	21.8	41	6.7	12	13	6	
FERMOY (MOOREPARK)	28.4	48	12.6				
CORK AIRPORT	39.7	56	12.1	12	13	7	
SHERKIN ISLAND	25.5	39	6.7	1	11	6	
BALLINCURRIG (PEAFIELD)	25.4		8.8	12	12	6	
<b>CO. DONEGAL</b>							
MALIN HEAD	66.2	114	24.1	1	14	9	
GLENTIES HATCHERY	95.9	120	29.7	1	15	12	
BALLYSHANNON (CATHLEEN'S FALL)	49.1	86	19.4	1	13	8	
<b>CO. DUBLIN</b>							
DUBLIN (PHOENIX PARK)	23.4	45	10.7	2	9	5	
DUBLIN AIRPORT	28.4		12.6	2	12	5	
CASEMENT AERODROME	30.0	59	11.1	2	10	6	
DUBLIN (MERRION SQUARE)	9.9	20	4.9	4	8	3	
<b>CO. GALWAY</b>							
GALWAY (UNIV. COLL.)	72.7	109	21.5	4	16	11	
MAAM VALLEY	166.6		43.3	12	17	15	
BALLYGAR	43.7	73	12.9	5	14	7	
<b>CO. KERRY</b>							
VALENTIA OBSERVATORY	66.1	86	20.6	12	16	11	
ARDFERT (LISCAHANE)	42.9		17.0	1	14	8	
<b>CO. LIMERICK</b>							
MOUNTRUSSELL	44.3		10.5	12	18	11	
<b>CO. MAYO</b>							
BELMULLET	73.4	129	15.6	1	13	12	
STRAIDE	82.3	128	24.1	1	15	9	
KNOCK AIRPORT	58.7		14.2	1	14	8	
DELPHI LODGE II	190.1		39.1	1	16	16	
<b>CO. MEATH</b>							
WARRENTOWN	24.5	42	9.1	4	9	6	
<b>CO. MONAGHAN</b>							
CARRICKMACROSS (DUNOGE)	22.1	37	8.5	12	10	6	
<b>CO. OFFALY</b>							
DERRYGREENAGH	32.8	57	9.7	12	10	7	
<b>CO. SLIGO</b>							
ARDTARMON	55.2		19.9	1	13	10	
<b>CO. TIPPERARY</b>							
GURTEEN	38.2		8.0	12	13	9	
FETHARD (PARSONSHILL)	24.4		6.0	12	11	7	
<b>CO. WATERFORD</b>							
WATERFORD (TYCOR)	15.3	25	4.2	13	9	5	
DUNGARVAN (CARRIGLEA)	22.3		7.7	12	11	6	
<b>CO. WESTMEATH</b>							
MULLINGAR	34.2	58	8.6	12	11	8	
<b>CO. WEXFORD</b>							
JOHNSTOWN CASTLE	27.2	43	8.4	13	11	6	
JOHN F. KENNEDY PARK	18.4	29	5.2	13	6	5	
CLONROCHE (KNOXTOWN)	22.9		7.4	4	9	6	
<b>CO. WICKLOW</b>							
ASHFORD (CRONYKEERY)	17.6		4.5	5	12	6	



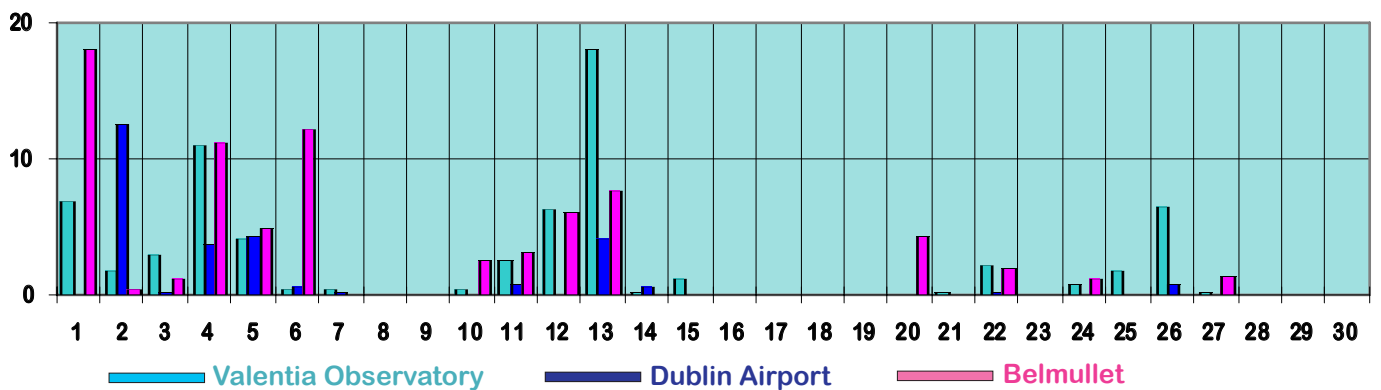
Total rainfall (mm)



Percentage of normal rainfall



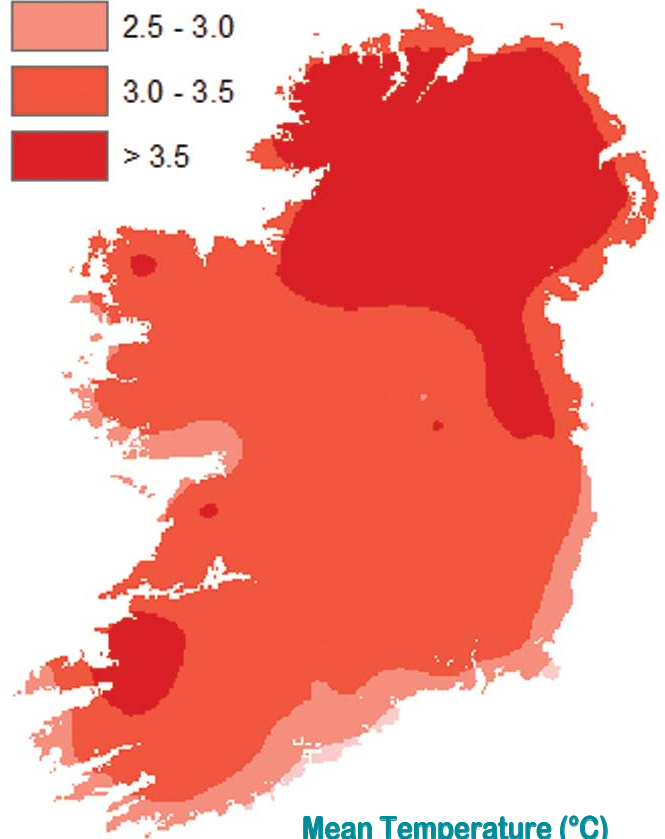
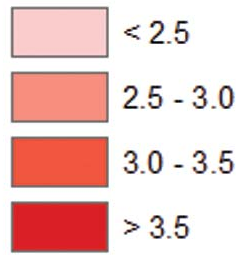
Daily 0-24h rainfall values (mm)



## Warmest April on record at most stations

Periods of high pressure dominated the weather during the month leading to mean temperatures being above average by around 3°C in most places. Almost all stations recorded April as the warmest on record with the exception of some stations in the east. Mean monthly air temperatures varied between 10.4°C at Knock Airport, Dublin Airport and Ashford (Cronykeery), Co. Wicklow and 12.2°C at Dublin (Merrion Square) and Ardfert(Lischane), Co. Kerry, the highest mean air temperature at these sites since 1966 and 1981, respectively.

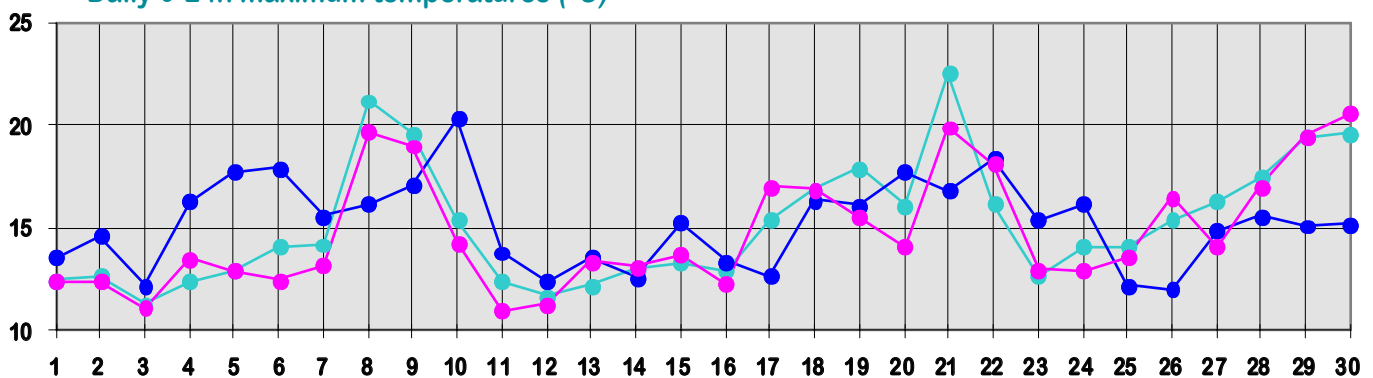
Almost all daily maximum air temperatures were recorded during the period of 20th to the 22nd with the highest daily maximum of 23.5°C, measured at Ardfert (Liscahane), Co Kerry on the 21st, its second highest April maximum since 1981. The month's lowest air temperature of -0.7°C was measured in Fermoy (Moorepark), Co. Cork on the 12th, while the lowest grass minimum temperature for April of -4.7°C was recorded at three different locations on various dates during the month. The number of ground frosts recorded across the country were between zero and 16, slightly below



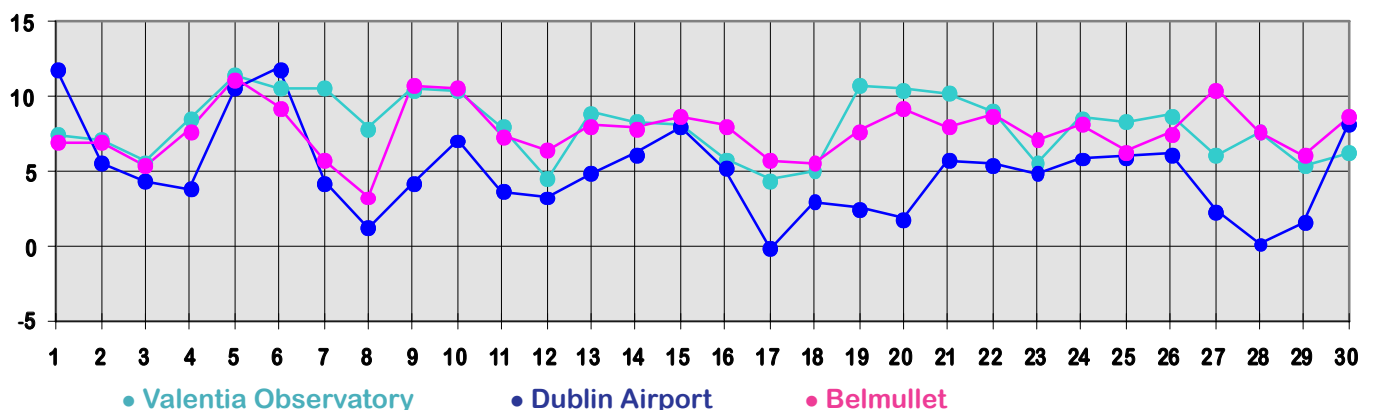
**Mean Temperature (°C)**  
(difference from 1961-90 normals)

average in areas for April with the fewest amount of ground frosts recorded in the west and in coastal areas.

**Daily 0-24h maximum temperatures (°C)**



**Daily 0-24h minimum temperatures (°C)**



• Valentia Observatory

• Dublin Airport

• Belmullet

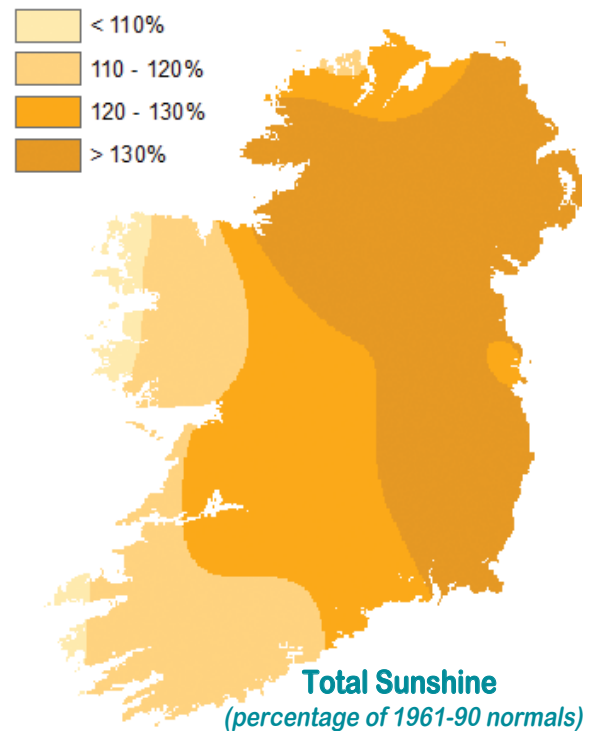
County/ Station	°C											
	Mean max.	Mean min.	Mean/ deviation from 1961-90 average		Highest max./date	Lowest min./date	Lowest grass min./date		Days with frost air ground			
<b>CO. CARLOW</b>												
CARLOW (OAK PARK)	16.2	6.0	11.1	3.0	21.6 21	1.0 29	-4.7 12	0	8			
<b>CO. CAVAN</b>												
BALLYHAISE	15.7	6.1	10.9		20.1 22	0.8 8	-3.0 8	0	6			
CAVAN (LORETO COLLEGE)	15.9	6.3	11.1		20.1 22	1.2 8	-1.8 29	0	6			
<b>CO. CLARE</b>												
SHANNON AIRPORT	16.3	7.9	12.1	3.2	22.7 21	2.9 17	-2.1 17	0	5			
CARRON	15.4	6.9	11.2	3.5	20.9 21	2.2 17	-3.4 17	0	9			
<b>CO. CORK</b>												
ROCHE'S POINT	13.8	8.1	11.0	2.4	17.4 21	3.9 12	-1.6 12	0	1			
FERMOY (MOOREPARK)	15.9	6.0	11.0	3.0	21.0 20	-0.7 12	-4.4 12	1	8			
CORK AIRPORT	14.3	7.2	10.8	2.9	18.2 20	2.4 12	-1.4 12	0	3			
SHERKIN ISLAND	14.6	8.4	11.5	2.7	18.0 20	5.0 17	3.2 23	0	0			
BALLINCURRIG (PEAFIELD)	16.3	6.0	11.2		21.4 20	0.7 12	0.0 12	0	0			
<b>CO. DONEGAL</b>												
MALIN HEAD	14.1	7.7	10.9	3.1	20.8 22	5.5 4	-0.9 26	0	2			
GLENTIES HATCHERY	16.3	6.8	11.6	4.1	22.1 22	0.7 8	-2.5 8	0	5			
BALLYSHANNON (CATHLEEN'S FALL)	16.1	6.9	11.5	3.6	21.1 22	3.8 8		0				
<b>CO. DUBLIN</b>												
DUBLIN (PHOENIX PARK)	16.3	6.6	11.5	3.6	21.1 10	1.8 17	-1.6 4	0	6			
DUBLIN AIRPORT	15.3	5.5	10.4		20.3 10	-0.1 17	-3.8 28	1	10			
CASEMENT AERODROME	15.7	6.6	11.2	3.5	21.8 22	0.0 17	-4.0 17	0	8			
DUBLIN (MERRION SQUARE)	15.4	9.0	12.2	3.3	19.6 6	6.1 12		0				
<b>CO. GALWAY</b>												
GALWAY (UNIV. COLL.)	16.6	6.1	11.4	2.7	22.7 21	0.2 17	-1.6 12	0	5			
MAAM VALLEY	15.9	7.5	11.7		21.1 21	3.5 8	1.5 17	0	0			
BALLYGAR	16.6	6.0	11.3		21.5 21	1.0 12	-2.9 12	0	7			
<b>CO. KERRY</b>												
VALENTIA OBSERVATORY	15.1	8.4	11.8	2.8	22.5 21	4.5 17	-2.1 12	0	5			
ARDFERT (LISCAHANE)	17.1	7.3	12.2	3.8	23.5 21	3.4 17	1.9 17	0	0			
<b>CO. LIMERICK</b>												
MOUNTRUSSELL	15.6	7.0	11.3		21.3 21	4.5 12	0.1 18	0	0			
<b>CO. MAYO</b>												
BELMULLET	14.8	8.3	11.6	3.2	20.6 30	3.3 8	0.2 8	0	0			
STRAIDE	16.2	6.4	11.3	3.2	20.8 21	0.4 8	-4.7 8	0	11			
KNOCK AIRPORT	14.5	6.3	10.4		19.7 21	2.3 12	-2.4 8	0	2			
DELPHI LODGE II	15.6	8.3	12.0		21.6 21	1.2 8	0.0 8	0	0			
<b>CO. MEATH</b>												
WARRENTOWN	16.2	6.2	11.2	3.5	21.2 10	0.0 17	-2.4 17	0	7			
<b>CO. MONAGHAN</b>												
CARRICKMACROSS (DUNOGE)	15.8	5.6	10.7		19.6 10	0.6 12	-3.9 12	0	12			
<b>CO. OFFALY</b>												
DERRYGREENAGH	16.6	5.3	11.0	3.6	21.1 21	0.9 17	-3.5 17	0	8			
<b>CO. SLIGO</b>												
ARDTARMON	16.5	7.7	12.1		21.4 21	3.8 8	-2.0 8	0	3			
<b>CO. TIPPERARY</b>												
GURTEEN	15.7	5.9	10.8		20.9 21	0.0 29	-3.5 29	0	10			
FETHARD (PARSONSHILL)	16.0	6.6	11.3		22.2 21	1.3 12	-0.4 12	0	1			
<b>CO. WATERFORD</b>												
DUNGARVAN (CARRIGLEA)	15.8	6.5	11.2	2.7	19.6 30	1.3 29	-1.0 29	0	2			
<b>CO. WESTMEATH</b>												
MULLINGAR	16.0	5.3	10.7		20.6 22	0.4 8	-2.9 17	0	10			
<b>CO. WEXFORD</b>												
JOHNSTOWN CASTLE	14.0	7.5	10.8	2.9	17.3 10	2.0 12	-1.0 4	0	1			
JOHN F. KENNEDY PARK	15.2	7.4	11.3	3.1	21.0 21	1.2 12	1.0 12	0	0			
CLONROCHE (KNOXTOWN)	15.6	5.7	10.7		20.5 20	0.5 4	-2.6 4	0	6			
<b>CO. WICKLOW</b>												
ASHFORD (CRONYKEERY)	15.3	5.4	10.4		20.4 10	0.8 12	-4.7 4	0	16			

## Sunny everywhere, especially in east

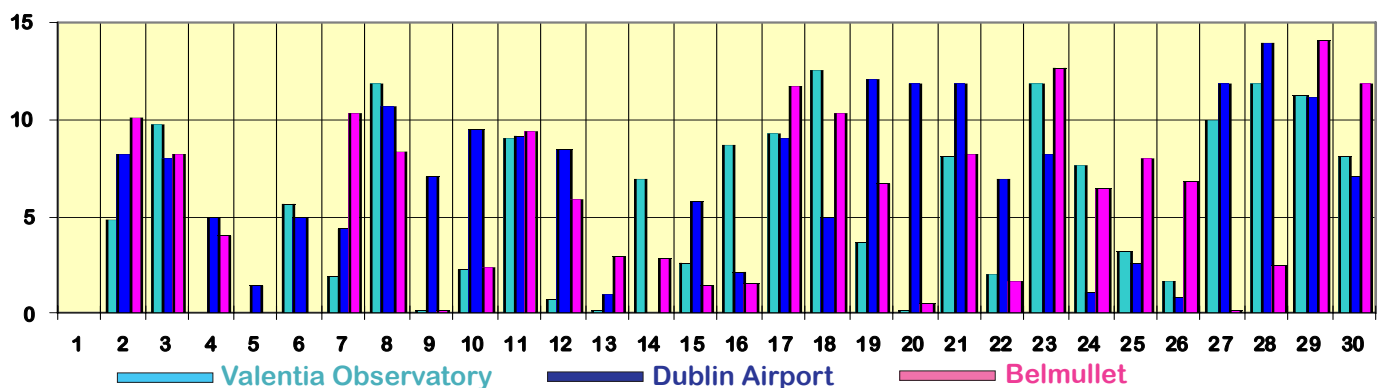
Sunshine totals were above normal everywhere and it was an especially sunny month in the east and northeast. Totals ranged from 164 hours at Valentia Observatory to 209 hours at Galway (University College) with percentage of normal values between 104% at Sherkin Island, Co. Cork and 142% at Casement Aerodrome.

The sunniest period of the month was between the 28th and 29th, when daily values of more than 13 hours were widely recorded; the month's highest daily value of 14.1 hours was measured at Belmullet on the 29th, equalling its highest daily value for April on record. Global solar radiation totals were near normal everywhere, ranging from 99% of normal at Valentia Observatory to 115% at Dublin Airport.

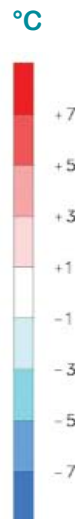
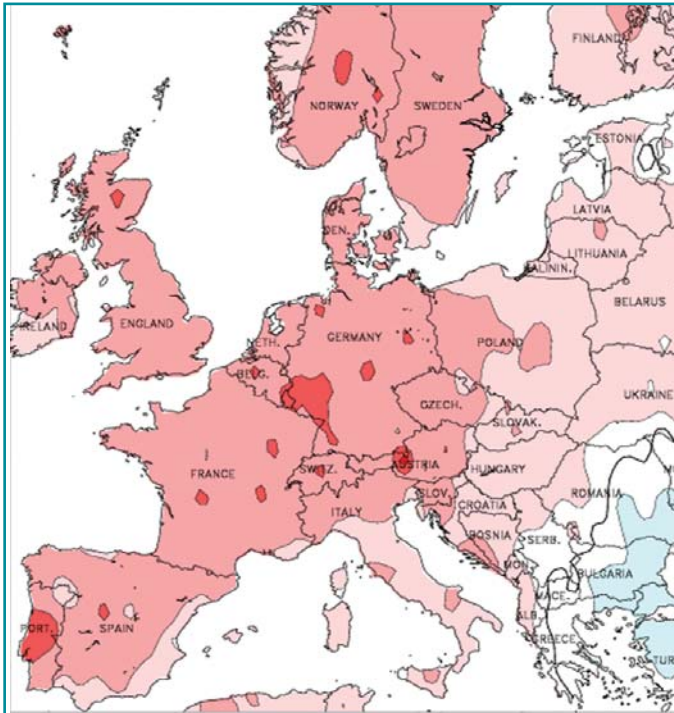
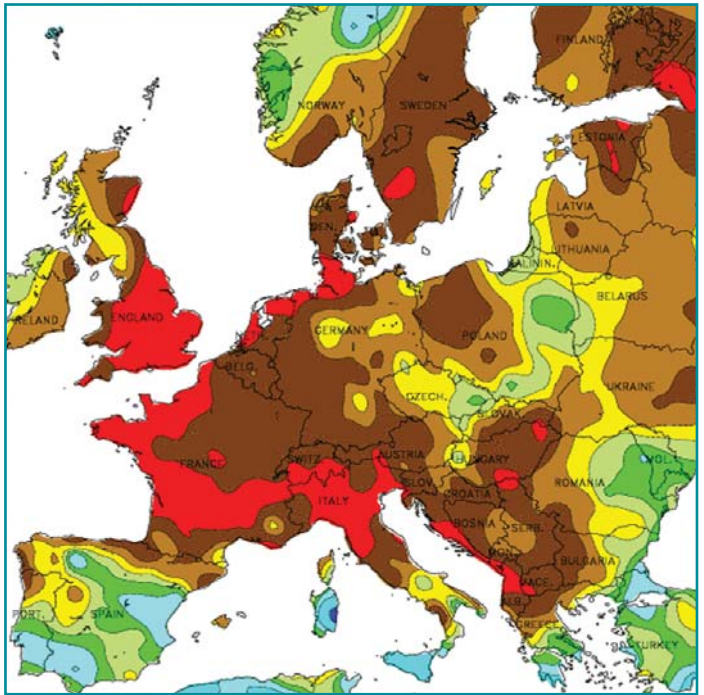
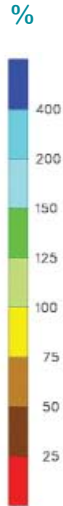
County/ Station	Daily mean (hours/day)	% of average	% of possible	Most in a day/date
<b>CO. CARLOW</b>				
CAVAN (LORETO COLLEGE)	5.96			11.8 23
<b>CO. CLARE</b>				
SHANNON AIRPORT	6.06	124	44	13.4 29
<b>CO. CORK</b>				
CORK AIRPORT	6.09	117	44	13.8 29
SHERKIN ISLAND	6.14	104	44	13.1 28
BALINCURRIG (PEAFIELD)	6.31			13.3 28 29
<b>CO. DONEGAL</b>				
BALLYSHANNON (CATHLEEN'S FALL)	6.49	138	46	12.6 29
<b>CO. DUBLIN</b>				
DUBLIN AIRPORT	6.72	129	48	13.9 28
CASEMENT AERODROME	6.95	142	50	13.8 28
<b>CO. GALWAY</b>				
GALWAY (UNIV. COLL.)	6.95	141	50	13.7 29
<b>CO. KERRY</b>				
VALENTIA OBSERVATORY	5.47	109	40	12.5 18
ARDFERT (LISCAHANE)	6.09		44	12.4 18 23
<b>CO. MAYO</b>				
BELMULLET	5.64	108	40	14.1 29
STRAIDE	6.37			13.1 29
KNOCK AIRPORT	6.00			13.4 29
<b>CO. WATERFORD</b>				
DUNGARVAN (CARRIGLEA)	6.44	126	46	13.3 28
<b>CO. WEXFORD</b>				
JOHN F. KENNEDY PARK	6.28	128	45	12.8 28 29
CLONROCHE (KNOXTOWN)	6.55			12.7 29
<b>CO. WICKLOW</b>				
ASHFORD (CRONYKEERY)	6.69		49	13.5 28



Daily sunshine values (hours)



**April RAINFALL**  
(percentage of 1961-1990 normal)



**April MEAN TEMPERATURE**  
(difference from 1961-1990 normal)

Data supplied by NOAA  
Climate Prediction Centre,  
US Department of Commerce

**Global weather highlights of the month**

Extremely dry conditions plagued the island nation of Cuba for several months, culminating in an extreme drought by mid April. Media sources claim that the drought was the worst to impact the nation in nearly half a century. Reservoirs in some regions were down to 20 percent of their normal level, prompting government officials to take emergency measures.

On April 8th, a freak sandstorm swept across the town of Rostock in northern Germany. The sand and dust swept across a busy four-lane road near the Baltic Sea, causing an 80 car pileup. Twenty of the vehicles caught on fire after a truck carrying flammable material spilled. Eight people were reported killed and another 41 injured. The dust storm was driven by extremely dry conditions across the country and strong winds blowing over recently ploughed fields.

Torrential rains triggered landslides and floods across southern Brazil on April 22nd, leaving at least eleven people dead and two missing. The hardest hit region was the Rio Grande Del Sol state. Several regions of the state were evacuated due to fears of additional landslides. It was reported that about 100,000 residents were without power.

A strong cyclone, dubbed a 'Nor'wester', hit Bangladesh on April 4th and 5th, killing 13 people and injuring 121. Media outlets reported that eight districts in the northern region of the country were hard hit with flooding rains, resulting in mudslides leveling hundreds of houses, and leaving thousands homeless. Hail also accompanied the storm, causing property damage and damage to a vast tract of corn, wheat, mango, and lychee orchards.

Heavy rains over the past few months across northern Australia have taken their toll on wildlife populations. The abnormal rainfall prompted a mass migration of native rats from the Northern Territory and western Queensland into the interior desert of the continent. The rats were seen for the first time in over 25 years in the town of Alice Springs.

CELEBRATING 25 YEARS OF THE WEATHER BULLETIN

**MONTHLY WEATHER BULLETIN**  
April 1986

# Coldest April since 1922

April 1986 was the coldest April in the history of the state in 100 years. Although the month started in a fairly warm and sunny mood, the weather soon turned to a cold, wet pattern. In fact, the month was the coldest since 1922. The lowest temperature was -11.5°C on the night of the 25th. The highest was 11.5°C on the night of the 1st. The monthly total rainfall was 105.5mm, which is the highest for any April since 1922. The monthly total snowfall was 10.5cm, which is the highest for any April since 1922.

**First Edition**

**Monthly Weather Bulletin**  
No. 293  
NOVEMBER 2009

# WETTEST NOVEMBER ON RECORD BRINGS WIDESPREAD FLOODING, MILD AND WINDY

As a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

**WETTEST NOVEMBER ON RECORD BRINGS WIDESPREAD FLOODING, MILD AND WINDY**

Adverse depression passing close to Ireland brought wet and windy conditions throughout almost all of November, continuing a pattern of very unsettled weather that began in late October. Prolonged and often heavy rain over the period led to unprecedented levels of flooding in parts of the west and south, as ground conditions became saturated. Rainfall totals for November were the highest on record at many stations, including the long-term station at Mullin Head and Valentia (Columbkille), where records extend back over 100 years. Valentia's total of 218.6mm was its highest of any month since observations began in the late 18th.

Dry	-
Wettest	19
Temperature	11
Rainfall	11
Sunshine	14
Wind	15
Wind & Pressure	8
Agri. Club	9

**MONTHLY WEATHER BULLETIN**  
JULY 1989

# Vies with July 1983 as warmest month on record

Dry and Sunny

As a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

**Stagnated high day time temperatures**

Over exceptionally wet and stormy conditions which began in some central regions from 12th to 14th a high pressure system was established over the country. Between 12th and 14th the weather was mainly clear and sunny with temperatures between 12°C and 15°C. At the start of the month the weather was mainly clear and sunny with temperatures between 12°C and 15°C. At the start of the month the weather was mainly clear and sunny with temperatures between 12°C and 15°C.

**Monthly Weather Bulletin**  
AUGUST 2000

# Frequent thunderstorms widespread on 25th

As a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

**Monthly Weather Bulletin**  
DECEMBER 1998

# Winter this season your everywhere without for over 20 years in places

Flooding follows wettest autumn for over 10 years

Highest temperature of the year recorded in September. Lowest that always covered by lowest temperature of the year in April 1999. Mildest February on record.

Cold summer everywhere - sunshine above normal countryside only in October. Highest daily sunshine of the year: 13.8 hours at Mullin Head on 6th July.

Nearly mean temperature above normal in north and west, below in south. Northern Irish winds at Mullin Head on 20th December 1998.

**Weather Highlights of 1998** - see page 13

**Monthly Weather Bulletin**  
AUGUST 1995

# Marble Warring on gorse city heat fires in hilly areas breaks

A RECORD ROAST

Staff morale is soaring with temperatures

Sun city!

Phew! Sun worshippers are reminded to wear hats as heat effects mount.

What a hot summer!

Dry	-
Wettest	19
Temperature	11
Rainfall	11
Sunshine	14
Wind	15
Wind & Pressure	8
Agri. Club	9

**Monthly Weather Bulletin**  
No. 285  
JANUARY 2010

# COLDEST JANUARY FOR OVER 25 YEARS

As a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

Dry	-
Wettest	19
Temperature	11
Rainfall	11
Sunshine	14
Wind	15
Wind & Pressure	8
Agri. Club	9

**Monthly Weather Bulletin**  
No. 294  
APRIL 2003

# Wettest April for over 100 years in places

As a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

**Monthly Weather Bulletin**  
MARCH 1990

# Warmest since 1961, driest too, except in northwest

As the coldest March since 1961, and the warmest since 1978, the weather was mainly clear and sunny with temperatures between 12°C and 15°C. At the start of the month the weather was mainly clear and sunny with temperatures between 12°C and 15°C.

**Monthly Weather Bulletin**  
No. 243  
JUNE 2006

# DRY, WARM AND SUNNY EVERYWHERE

WARMEST JUNE FOR OVER 30 YEARS IN PLACES

As a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

**Monthly Weather Bulletin**  
NOVEMBER 1996

# Storm causes death and destruction

January saw a combination of large depressions in the process of the weather. Between 10th and 12th a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

**Monthly Weather Bulletin**  
JANUARY 1981

# Storm causes death and destruction

January saw a combination of large depressions in the process of the weather. Between 10th and 12th a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.

**Monthly Weather Bulletin**  
No. 252  
APRIL 2007

# WARMEST, SUNNIEST ON RECORD; DRY FOR MOST OF MONTH

High pressure covered most or over the country during almost all of April gave an exceptionally sunny, warm and dry month everywhere. Mean monthly air temperatures ranged between 10°C and 11.5°C and were around three degrees higher than normal generally. The range of temperatures is more typical of April for an average May. It was the warmest April on record since observations, including the long-term station at Mullin Head and Valentia (Columbkille), where records extend back over 100 years. Valentia's total of 218.6mm was its highest of any month since observations began in the late 18th.

Dry	-
Wettest	19
Temperature	11
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**MONTHLY WEATHER BULLETIN** Supplement to AUGUST 1996

# August Storms

Heavy rain on 5th causes flooding in Cork and Kerry

Offshoot of Hurricane Charley hits Ireland on 25th

Worst flooding in Dublin for 100 years

New rainfall records

**MONTHLY WEATHER BULLETIN**

# Weather of February 1988

## Storm Force Winds over Ireland on Tuesday the 9th of February 1988

INFRARED SATELLITE PICTURE

Taken at 09:00 GMT on 9th Feb 1988

**Monthly Weather Bulletin**  
No. 290  
DECEMBER 2002

# DULL AND WET IN SOUTH AND EAST; BECOMING VERY MILD AFTER COLD SPELL

January saw a combination of large depressions in the process of the weather. Between 10th and 12th a low pressure area moved southwards across England on 1st an area of high pressure approached Ireland from the west and the period led to the wettest and driest with the rainiest weather in the history of the country. Between 6th and 10th a low pressure area from the continent moved northwards towards Ireland. This caused a week of mild weather to develop over an odd region in some mountainous areas, especially in the east (see satellite picture) and early on 10th. The depression over England moved away rapidly on 10th and until 15th the day feature was an anticyclone to the west during this period while the weather was predominantly southerly and mild, while weak fronts occasionally gave spots of rain. It was mostly dry. During 17th and 18th winds were light and variable as an anticyclone moved slowly across the country.