

Monthly Weather Bulletin

No. 288
APRIL 2010



High pressure over and to the west of the country at mid-month gave dry and settled conditions, but the northwesterly winds brought volcanic ash of Icelandic origin over Ireland, causing many flight cancellations (see feature). This picture was taken at Malahide, Co. Dublin, on the evening of the 19th. (picture Gerry Dunne)

DRY FOR MOST OF MONTH AND SUNNY EVERYWHERE; BECOMING WARM AFTER COOL START

After a cool and unsettled start to the month, high pressure became the main influence on Ireland's weather for most of April, giving dry and sunny conditions with light winds. Cloudier weather with rain at times developed during the final week. Rainfall totals for the month were

below normal in most eastern and southern areas, but some heavy falls on a few days brought totals above normal in the west and southwest. Even in the driest areas, however, totals were not as low as the exceptionally dry April of 2007. Little or no rain was measured

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*Severe
flight disruption
due to
volcanic ash*



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Glasnevin Hill, Dublin 9.
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For more information-
tel: +353-1-8064260
fax: +353-1-8064216
climate.enquiries@met.ie
www.met.ie/climate

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





Above
The period around the middle of the month was exceptionally sunny, with more than 10 hours of sunshine on most days between the 10th and 20th. This picture shows the U.C.D. ladies team at the National Rowing Centre in Farran, Co. Cork, on the 12th. (picture Irish Examiner)

between the 7th and 23rd, but there were some heavy falls during the first week, especially on the 4th/5th, when the highest April daily falls for more than 20 years were measured at a number of stations. There was a total of between eight and 12 wetdays generally (days with 1mm or more rainfall), below the normal range for April of 10 to 14.

After a cold and frosty start to the month, temperatures recovered and were well above normal by the final week; as a result, mean monthly air temperatures were around a degree higher than normal generally, the first warmer than normal month since last November. Mean maximum temperatures were around two degrees above normal in some midland and western areas, but mean minimum values were much closer to normal, indicating the frequency of frost during much of the month. There was

a total of between 13 and 20 ground frosts at inland stations compared with the normal range for April in these areas of between 9 and 12. The lowest April air and ground temperatures for 12 years were measured in the Dublin area on the 21st. Sunshine totals were above normal everywhere and, for the fifth successive month, they were well above normal in the south and west, reflecting the prevalence of anticyclonic weather over the period. Shannon Airport's sunshine total of 231 hours was its highest for April since the station opened in 1945. The sunniest period of the month was between the 10th and 23rd, when daily values of more than 10 hours were widely recorded.

1st to 6th: Depressions moving close to Ireland gave unsettled conditions, with showers or longer spells of rain each day. Heaviest falls were in western and

southwestern areas in the period 4th to 6th. Strong southwesterly winds associated with a deep depression to the northwest on the 5th brought gale gusts in all areas, with severe gusts in the west.

Temperatures were below normal, with widespread ground frost during the first four days.

7th to 23rd: Anticyclones centred near the country brought dry and fine conditions. Clear skies gave long sunny spells by day, but many nights were cold, with severe ground frost in places. Highest daytime temperatures were in areas sheltered from onshore breezes, mostly in the west and south. Winds were light throughout, from a mainly easterly direction at first before turning northerly; this direction brought volcanic ash of Icelandic origin over Ireland, causing significant disruption of air travel. Relative humidity values of below 50% on many days in western areas caused vegetation to become very dry,

leading to extensive gorse and forest fires late in the period.

24th to 30th: Unsettled weather returned, as southwest to westerly winds brought spells of rain or showers, some heavy and thundery. Most days were cloudy, but both daytime and nighttime temperatures were well above normal.

Wind and elements: Mean windspeeds for the month were below normal everywhere, for the fourth successive month. The month's strongest winds were recorded during the first week; Belmullet measured the highest gust of 75 knots (139km/h) on the 5th, the highest April gust at the station since it opened in 1956. Snow showers were recorded on the 1st, while hail was observed between the 1st and 3rd and on the 6th. Thunder was infrequent during the month, but was widespread over the east of the country on the 25th. Fog was widespread on the 3rd.

Below

Showers developed in many areas during the last week of the month, some of which were heavy and thundery. This picture was taken over north Dublin during the afternoon of the 25th, as a band of thunderstorms developed over the area.



County / Station	WIND (KNOTS)										ELEMENTS				
	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
CO. CARLOW CARLOW (OAK PARK)	6.6	190°	30	5/15	190°	43	5/1523	0	1	28					
CO. CAVAN BALLYHAISE	5.5	170°	22	5/15	160°	37	5/1403	0	1	9					
CO. CLARE SHANNON AIRPORT	7.8	180°	30	5/12	190°	42	5/1312	0	2	5	1	0	1	0	1
CO. CORK ROCHE'S POINT	10.2	170°	37	5/18	170°	46	5/1819	2	4	66					
CORK AIRPORT	8.4	180°	26	5/20	190°	42	5/1933	0	4	25	1	0	0	0	7
CO. DONEGAL MALIN HEAD	10.7	180°	33	5/18	180°	48	5/1707	0	7	31	0	0	1	0	2
CO. DUBLIN DUBLIN AIRPORT	8.4	210°	32	5/17	210°	47	5/1453	0	1	15	0	0	0	0	1
CASEMENT AERODROME	7.6	200°	36	5/16	200°	47	5/1541	1	2	31	0	0	2	0	2
CO. KERRY VALENTIA OBSERVATORY	7.2	210°	25	4/24	190°	41	5/1332	0	4	21	0	0	2	0	0
CO. MAYO BELMULLET	10.5	200°	43	5/13	210°	75	5/1353	2	7	66	0	0	1	0	1
KNOCK AIRPORT	8.1	200°	29	5/ 9	200°	47	5/ 837	0	2	19	1	0	2	0	3
CO. TIPPERARY GURTEEN	7.2	180°	27	5/15	190°	43	5/1615	0	1	16					
CO. WESTMEATH MULLINGAR	5.5	170°	22	5/15	180°	37	5/1451	0	1	6					
CO. WEXFORD JOHNSTOWN CASTLE	6.3	190°	20	5/12	190°	37	5/1112	0	1	4					

Valentia Observatory

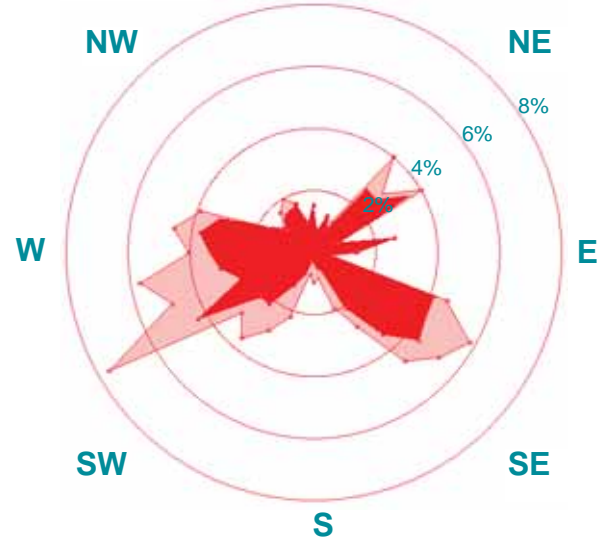
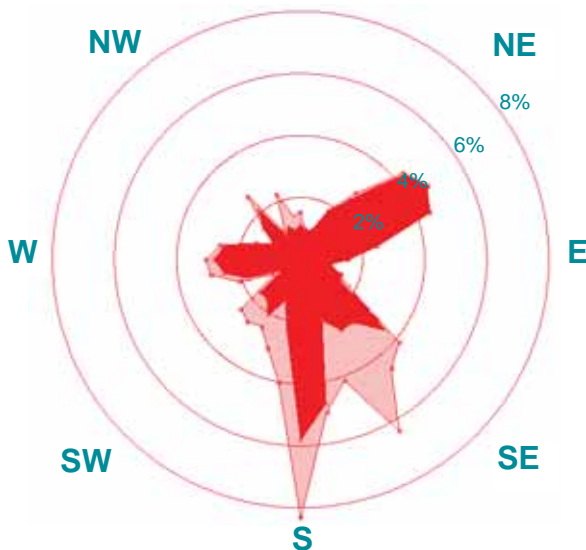
Dublin Airport

Calm: 0.0%

N

Calm: 0.0%

N

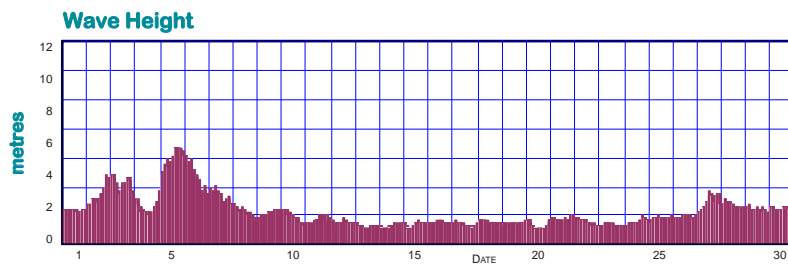
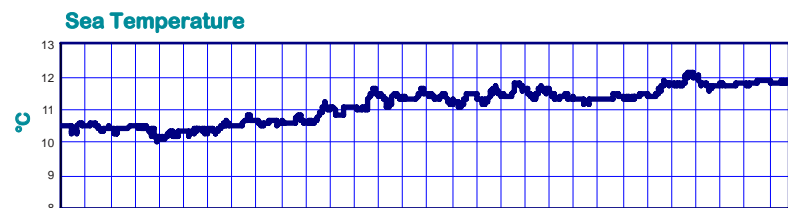
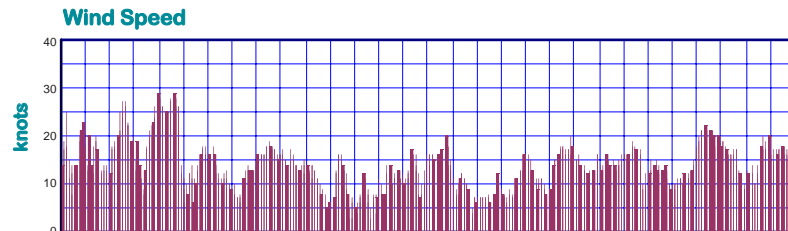
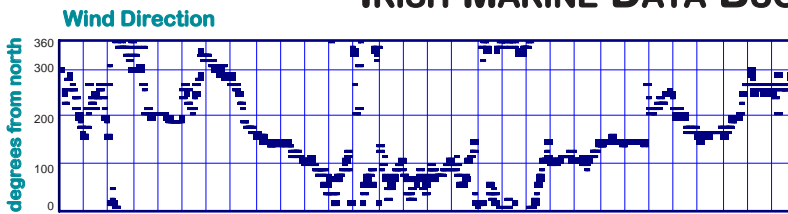


1-10 knots

>10 knots

PERCENTAGE FREQUENCY OF WIND DIRECTION

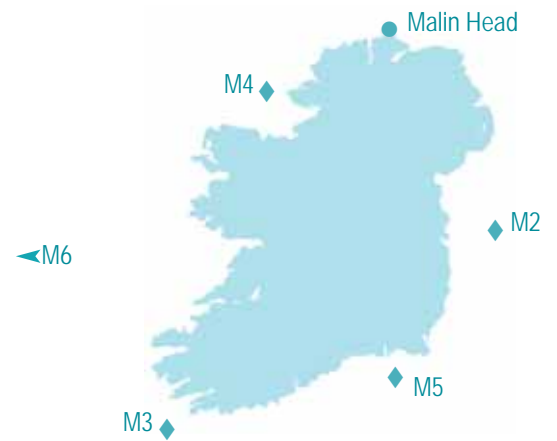
MARINE OBSERVATIONS FROM IRISH MARINE DATA BUOY NETWORK



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

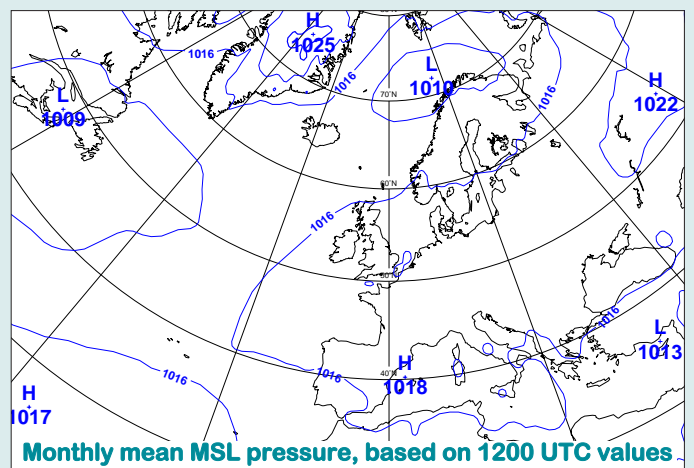
Buoy	Sea surface temp. (°C)	Mean wind speed (knots)	Max. 10-min wind (knots)	Mean wave height (m.)	Max. wave height (m.)
M2	n/a	12.1	35	0.8	4.1
M3	11.1	13.7	29	2.3	6.6
M4		not available			
M5	9.4	12.1	29	1.5	5.0
M6	11.1	20.3	37	2.7	8.3
Malin Head	8.1				

Summary of Mean Monthly Values

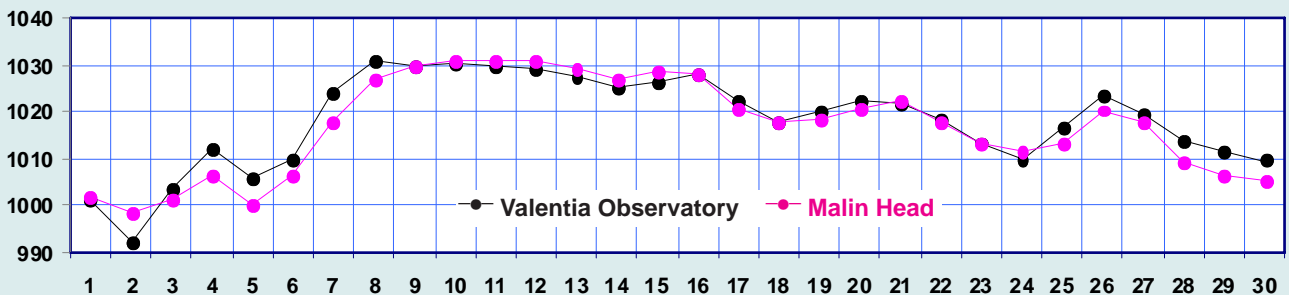


MEAN ATMOSPHERIC PRESSURE

There was very little variation in mean sea level pressure values for the month: average values were between 1017hPa and 1019hPa everywhere, around 2hPa higher than normal for April. The month's lowest pressure values were during the first week, when depressions passed close to or over Ireland; the lowest pressure of 988.1hPa was recorded at Johnstown Castle on the 2nd. Pressure rose well above normal around mid-April, with the month's highest pressure value of 1033.8hPa measured at a number of stations on the 10th.



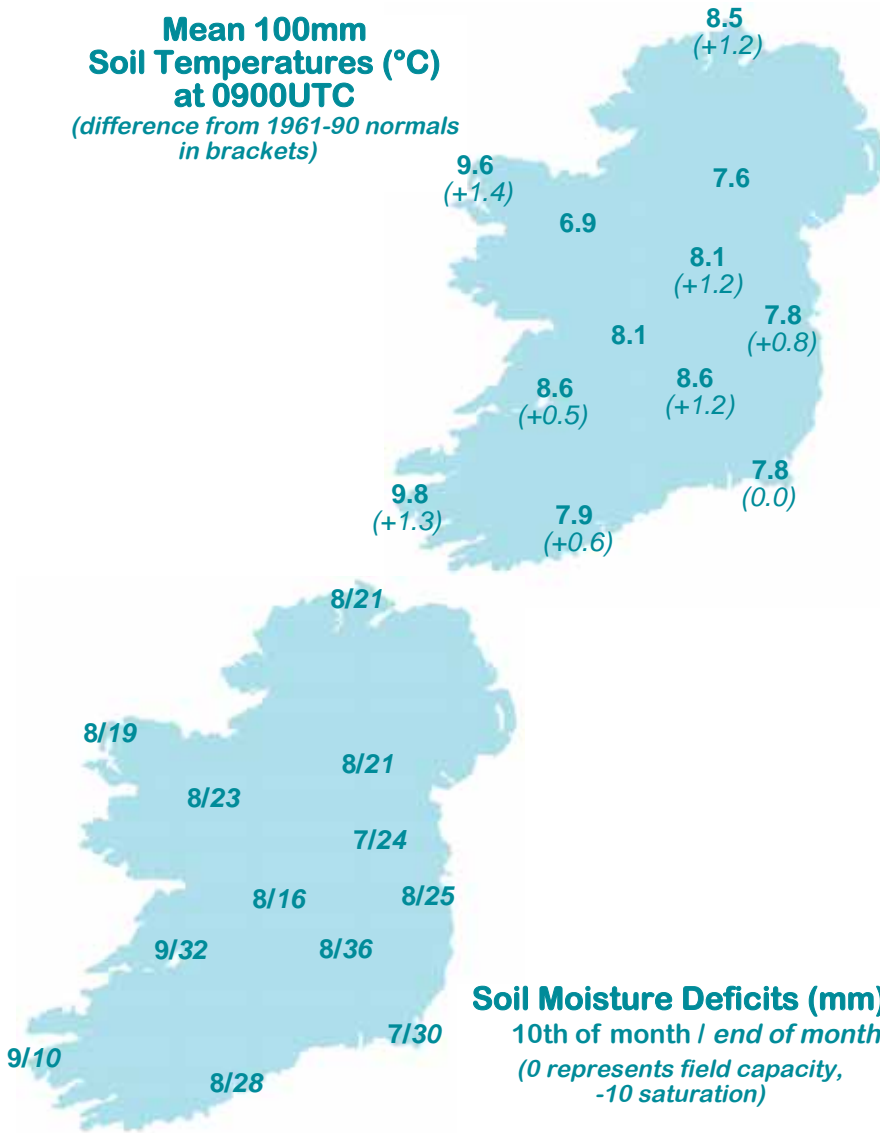
Monthly mean MSL pressure, based on 1200 UTC values



Mean daily Mean Sea Level pressure (hPa)

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

(difference from 1961-90 normals in brackets)

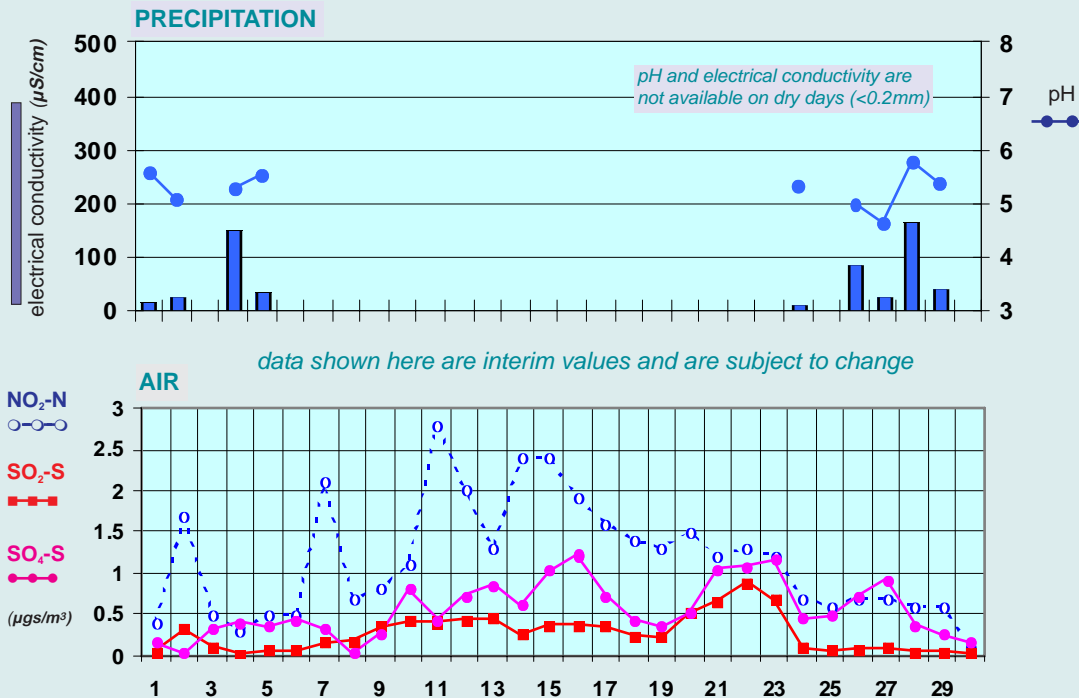


Soil Temperatures at 0900UTC

County/ Station	°C		
	100mm	200mm	300mm
CO. CARLOW			
CARLOW (OAK PARK)	8.6	8.4	8.7
CO. CAVAN			
BALLYHAISE	7.6	8.0	8.4
CO. CLARE			
SHANNON AIRPORT	8.6	8.9	9.8
CARRON	8.9		9.4
CO. CORK			
ROCHE'S POINT	8.4	8.8	9.2
FERMOY (MOOREPARK)	8.5	8.7	9.2
CORK AIRPORT	7.9	8.0	8.9
SHERKIN ISLAND	8.9	9.3	9.7
BALLINCURRIG (PEAFIELD)	7.5	7.3	8.6
CO. DONEGAL			
MALIN HEAD	8.5	8.9	9.1
CO. DUBLIN			
DUBLIN (PHOENIX PARK)	8.4	9.1	9.0
DUBLIN AIRPORT	7.6	7.8	8.4
CASEMENT AERODROME	7.8	8.1	8.4
CO. KERRY			
VALENTIA OBSERVATORY	9.8	10.5	11.3
CO. LIMERICK			
MOUNT RUSSELL	7.4	8.4	
CO. MAYO			
BELMULLET	9.6	10.6	11.0
STRAIDE	8.7		
KNOCK AIRPORT	6.9	7.8	8.3
CO. MEATH			
WARRENSTOWN	7.7	8.5	9.2
CO. TIPPERARY			
GURTEEN	8.1	8.3	8.8
PETHARD (PARSONSHILL)	7.6	8.5	
CO. WATERFORD			
DUNGARVAN (CARRIGLEA)		8.7	9.1
CO. WESTMEATH			
MULLINGAR	8.1	8.5	9.2
CO. WEXFORD			
JOHNSTOWN CASTLE	9.0	8.7	9.1
JOHN F. KENNEDY PARK	9.2	9.4	10.3
CLONROCHE (KNOXTOWN)	8.1	8.7	8.7

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
Cavan (Loreto)	11-20	0.0	-	0	0	13.9	1.4	7.7	-	-0.1	16	1	40	10	-2.4	16	9	-	-	80.5	-
	21-end	17.5	-	7	5	15.0	6.1	10.6	-	-2.1	21	2	65	20	-6.0	21	2	-	-	29.8	-
	month	76.7	-	13	9	13.6	3.6	8.6	-	-2.1	21	3	140	36	-6.0	21	15	-	-	152.8	-
Co. Cork	1-10	33.1	-	6	4	12.1	2.7	7.4	-	-1.0	4	2	34	5	-1.3	4	2	5.8	6.9	61.5	-
Ballincurrag	11-20	0.0	-	0	0	15.4	2.5	9.0	-	0.6	17	0	50	15	-0.6	17	1	7.2	9.1	100.2	-
(Peafield)	21-end	16.6	-	6	5	14.2	5.5	9.9	-	-0.4	22	1	57	15	-1.5	22	1	9.4	9.7	50.3	-
	month	49.7	-	12	9	13.9	3.6	8.8	-	-1.0	4	3	142	35	-1.5	22	4	7.5	8.6	212.0	-
Co. Donegal	1-10	65.0	-	5	5	13.0	3.2	8.1	-	-1.2	4	2	42	10	-4.7	4	4	-	-	-	-
Glenties	11-20	3.4	-	3	1	14.7	1.7	8.2	-	-3.2	19	3	45	12	-5.1	19	7	-	-	-	-
	21-end	23.8	-	8	4	14.8	6.3	10.6	-	-3.1	21	2	65	20	-4.1	22	2	-	-	-	-
	month	92.2	115	16	10	14.2	3.7	9.0	1.5	-3.2	19	7	152	43	-5.1	19	13	-	-	-	-
Co. Kerry	1-10	48.2	-	6	5	13.6	3.3	8.5	-	-1.1	3	1	44	11	-3.2	3	3	-	-	56.8	-
Ardfert	11-20	0.0	-	0	0	17.0	3.2	10.1	-	0.9	15	0	61	20	-1.8	15	3	-	-	110.1	-
	21-end	18.2	-	6	3	16.9	7.0	12.0	-	1.0	21	0	77	29	-2.1	21	3	-	-	53.3	-
	month	66.4	-	12	8	15.8	4.5	10.2	1.8	-1.1	3	1	182	60	-3.2	3	9	-	-	220.2	-
Co. Monaghan	1-10	31.3	-	5	4	12.1	2.3	7.2	-	-0.8	2	3	34	6	-3.1	2	7	-	-	-	-
Carrickmacross	11-20	0.1	-	0	0	14.1	1.6	7.9	-	-0.7	17	2	41	11	-3.3	20	8	-	-	-	-
	21-end	10.6	-	7	2	15.3	5.0	10.2	-	-2.0	21	2	61	19	-4.6	21	5	-	-	-	-
	month	42.0	70	12	6	13.8	2.9	8.4	-	-2.0	21	7	137	36	-4.6	21	20	-	-	-	-
Co. Waterford	1-10	43.6	-	6	4	12.5	3.0	7.8	-	0.1	3	0	39	7	-0.9	1	3	-	7.6	66.7	-
Dungarvan	11-20	0.0	-	0	0	14.4	2.8	8.6	-	-0.4	17	1	46	11	-1.5	17	2	-	9.1	98.0	-
	21-end	16.0	-	5	5	14.6	6.4	10.5	-	-0.6	22	2	64	20	-1.9	23	3	-	10.7	58.5	-
	month	59.6	-	11	9	13.8	4.1	9.0	0.5	-0.6	22	3	149	38	-1.9	23	8	-	9.1	223.2	147
Co. Wexford	1-10	32.7	-	6	4	12.0	3.4	7.7	-	-1.2	1	2	37	5	-4.0	1	3	7.2	8.8	70.7	-
J.F.K. Park	11-20	0.0	-	0	0	14.0	4.5	9.3	-	1.9	17	0	50	11	-1.2	20	3	9.4	10.7	97.2	-
	21-end	14.9	-	5	4	13.5	6.5	10.0	-	2.1	23	0	57	13	-1.5	23	2	11.1	11.5	55.6	-
	month	47.6	74	11	8	13.1	4.8	9.0	0.9	-1.2	1	2	143	29	-4.0	1	8	9.2	10.3	223.5	135

MEASURED POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE						P.E. (Penman)		GLOBAL SOLAR RADIATION (MJ/sq.m.)			
Station	Period	P.E. (mm)		Soil Moisture (mm)		Station	total(mm)	1st-10th	11th-20th	21st-end	Total
		Amount	Deficit	Accum'd	Deficit Surplus						
Co. Kerry	1-10	9.4	-	0	62	Co. Carlow	59	129.83	166.69	143.92	440.44
Valentia Obs.	11-20	27.2	-	0	0	Carlow (Oak Park)*	59				
	21-end	22.7	-	0	14	Co. Cavan	54	117.56	157.35	124.46	399.37
	month	59.3				Ballyhaise*	54				
						Co. Clare	66	global solar radiation values for stations marked * are provisional			
						Shannon Airport	66				
						Co. Cork	56	147.57	182.39	140.57	470.53
						Cork Airport	56				
						Roche's Point*	56				
						Co. Donegal	54	118.11	174.22	129.49	421.82
						Malin Head	54				
						Co. Dublin	55	n/a	171.07	153.54	n/a
						Dublin Airport	55				
						Casement Aerodrome	58				
						Co Kerry	63	137.94	213.74	138.93	490.61
						Valentia Obs.	63				
						Co. Mayo	55	126.56	179.04	137.64	443.24
						Belmullet	55				
						Knock Airport	57				
						Co. Tipperary	54	128.18	n/a	145.97	n/a
						Curteen*	54				
						Co. Westmeath	55	113.35	156.39	142.68	412.42
						Mullingar*	55				
						Co. Wexford	54	133.46	157.65	141.90	433.01
						Johnstown Castle*	54				

MONTHLY EVAPORATION (MM) FROM CLASS A PAN			
County	Station	Monthly Rainfall (mm)	Monthly Evaporation (mm)
Kerry	Valentia Observatory	98.9	79.6
Kerry	North Kerry Landfill	91.4	60.6
Mayo	Newport (Furnace)	48.8	58.8
Offaly	Derrygreenagh	37.3	52.8
Waterford	Dungarvan (Carriglea)	59.6	59.8
Wexford	J.F.K. Park	47.6	91.4

Thursday 1st: After a cold start, the day was cool with scattered showers and sunny spells. Some of the showers were heavy and some were wintry early on. The showers largely died out in the evening and it became cold again with ground frost developing. Winds were light to moderate, variable.

Rainfall: nil to 12mm, heaviest at Malin Head, nil at Casement Aerodrome

Temperature: max. 7°C to 10°C, min. -1°C to 3°C, ground temperatures down to -5°C at Dublin Airport

Sunshine: 4 to 10 hours, sunniest at Belmullet, 4 hours at Dublin Airport

Friday 2nd: Early rain in the southwest moved over the country during the day. The rain was followed by heavy thundery showers of rain and hail, clearing all but the north by late evening. Sunny spells in the afternoon in the south. Winds were east to northeasterly, moderate with occasional gusts.

Rainfall: 2 to 14mm, heaviest at Valentia, 2mm at Casement Aerodrome

Temperature: max. 7°C to 11°C, min. 0°C to 4°C, ground temperatures down to -5°C at Dublin Airport

Sunshine: 1 to 7 hours, sunniest at Cork Airport, 1 hour at Belmullet

Saturday 3rd: A cool, windy day with scattered showers and sunny spells. The showers largely died out in the evening and it became cold again inland and in the east, with ground frost setting in quickly after dark. Winds were north to northwesterly, moderate to fresh and gusty, easing slightly by evening.

Rainfall: trace to 6mm, heaviest at Belmullet, trace at Ballyhaise

Temperature: max. 8°C to 10°C, min. -2°C to 5°C, ground temperatures down to -6°C at Casement Aerodrome

Sunshine: 3 to 7 hours, sunniest at Belmullet, 3 hours at Valentia

Sunday 4th: After a cold night, most areas had a dry start to the day with some sunny spells, but cloudier weather with outbreaks of rain moved onto Atlantic coastal areas during the morning. This rain became more persistent and sometimes heavy during the evening. Some sunny spells at first, particularly in the eastern half of the country. Winds were variable, fresh to strong and gusty.

Rainfall: trace to 11mm, heaviest at Belmullet, trace at Dublin Airport

Temperature: max. 7°C to 11°C, min. -1°C to 3°C, ground temperatures down to -6°C at Claremorris

Sunshine: 1 to 8 hours, sunniest at Dublin Airport, 1 hour at Belmullet

Monday 5th: Rain in Connacht, Ulster and Leinster gradually died out overnight, as dry weather, already in Munster, spread northwards. It was dry everywhere through the middle of the day but rain spread into the west during the middle of the afternoon, reaching all but the southeastern corner by late evening. Winds were south or southwesterly, strong to gale force, easing by late evening.

Rainfall: <1 to 27mm, heaviest at Valentia, <1mm at Johnstown Castle

Temperature: max. 10°C to 13°C, min. 6°C to 9°C, no ground frost

Sunshine: nil to 5 hours, sunniest in the east, nil in the west

Tuesday 6th: Widespread rain overnight, some of which was heavy. The rain gradually cleared from the west during the morning, finally clearing the east coast by mid-afternoon. A further band of showers crossed the country during the afternoon, becoming dry in all areas by evening. Sunny spells during the afternoon, with most sunshine in the west. Winds were light to moderate, variable.

Rainfall: 1 to 27mm, heaviest at Ballyhaise, 1mm at Belmullet

Temperature: max. 10°C to 13°C, min. 3°C to 7°C, ground temperatures down to -2°C at Claremorris

Sunshine: 2 to 8 hours, sunniest at Valentia, 2 hours at Casement Aerodrome

Wednesday 7th: Mainly dry overnight with clear spells and isolated showers along the west coast, some ground frost in places also. The day was dry with sunny spells and fairly light winds. Continuing dry and mainly sunny during the evening. Winds were light, generally westerly in direction.

Rainfall: nil to trace generally, 1mm at Belmullet

Temperature: max. 11°C to 13°C, min. 2°C to 6°C, ground temperatures down to -3°C at Ballyhaise

Sunshine: 7 to 10 hours, sunniest at Knock Airport, 7 hours at Belmullet

Thursday 8th: Mainly dry overnight, apart from some light drizzle on northern coasts, with clear spells elsewhere. The morning was dry with sunshine in southern parts, a bit cloudier further north. The afternoon continued dry with sunny spells. The evening and night continued dry and

clear. Winds were light throughout, westerly in direction.

Rainfall: nil to trace generally, <1mm at Malin Head

Temperature: max. 11°C to 14°C, min. 3°C to 8°C, ground temperatures down to -2°C at Johnstown Castle

Sunshine: 1 to 8 hours, sunniest at Cork Airport, 1 hour at Knock Airport

Friday 9th: Dry overnight with clear periods, but cloudy in northern and northwestern areas. Fog patches also, mainly in the south and southeast. After fog cleared during the early morning, the day was dry with sunshine, particularly in southern areas. Clear spells during the night, with mist and some ground frost forming. Winds were light southwesterly.

Rainfall: nil to trace

Temperature: max. 11°C to 16°C, min. 2°C to 8°C, ground temperatures down to -1°C at Dublin Airport

Sunshine: 4 to 9 hours, sunniest at Cork Airport, 4 hours at Dublin Airport

Saturday 10th: Dry and clear overnight with some mist and ground frost in places. A dry day followed with warm sunshine. Continuing dry and clear overnight, with mist forming and some ground frost also. Winds were light throughout, southerly or variable in direction.

Rainfall: nil to trace

Temperature: max. 12°C to 19°C, min. -1°C to 9°C, ground temperatures down to -4°C at Dublin Airport

Sunshine: 8 to 12 hours, sunniest at Valentia, 8 hours at Dublin Airport

Sunday 11th: Mist or fog cleared quickly during the morning and it was a dry, warm and sunny day. Afternoon temperatures were above normal generally but it was slightly cooler along eastern and northern coasts due to onshore breezes. Remaining dry and clear after dark with mist returning to some places. Winds were light and variable or easterly in direction.

Rainfall: nil to trace

Temperature: max. 12°C to 20°C, min. 0°C to 8°C, ground temperatures down to -3°C at Mullingar

Sunshine: 11 to 12 hours, sunniest at Knock Airport

Monday 12th: Mist and fog cleared early and it was a dry, warm and sunny day in most places. Sea fog moved onto northern coasts during the afternoon and evening and it became cloudier on northwestern coasts, while remaining clear elsewhere. Winds were generally light, variable or northeasterly in direction.

Rainfall: nil

Temperature: max. 11°C to 19°C, min. 2°C to 7°C, ground temperatures down to -2°C at Gurteen and Shannon Airport

Sunshine: 10 to 12 hours, sunniest in the west, 10 hours at Casement Aerodrome

Tuesday 13th: Cloudy in Ulster and north Connacht for most of the day, with mist and fog persisting on northern coasts. Clearer elsewhere with sunny spells. Cool where cloud persisted and along east-facing coasts, due to onshore breezes. Light, variable or northeasterly winds were moderate at times on northwestern coasts.

Rainfall: nil

Temperature: max. 11°C to 17°C, min. 1°C to 9°C, ground temperatures down to -2°C at Casement Aerodrome

Sunshine: 5 to 13 hours, sunniest at Dublin Airport, 5 hours at Belmullet

Wednesday 14th: After a cold night, it was a dry, fine day generally with sunny spells and variable cloud amounts. Cooler than of late with temperatures a few degrees below normal. Cold and clear after dark with ground frost developing in places. Winds were variable, light to moderate.

Rainfall: nil

Temperature: max. 9°C to 15°C, min. 0°C to 6°C, ground temperatures down to -5°C at Casement Aerodrome

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

Thursday 15th: Dry overnight with clear skies and widespread frost and mist. A dry day followed with long hours of sunshine, apart from the east coast, where cloud persisted until mid-afternoon. Clear spells during the evening and night. Winds were light to moderate, northerly in direction.

Rainfall: nil

Temperature: max. 10°C to 16°C, min. -1°C to 7°C, ground temperatures down to -5°C at Casement Aerodrome

Sunshine: 3 to 13 hours, sunniest at Shannon Airport, 3 hours in the east

Friday 16th: Widespread frost and fog overnight. After these had cleared during the morning, the day was dry and sunny countrywide. Ground frost returned after dark. Winds were light, northeasterly or variable.

Rainfall: nil

Temperature: max. 11°C to 16°C, min. -1°C to 5°C, ground temperatures down to -5°C at Casement Aerodrome

Sunshine: 11 to 13 hours, sunniest at Dublin Airport, 11 hours at Cork Airport

Saturday 17th: Cold overnight with ground frost in places. Becoming cloudy in the extreme northwest and north, while elsewhere there were long hours of sunshine during the day. During the evening, cloud thickened to light drizzle in the extreme northwest, elsewhere, although cloudier, it remained dry. Winds were light, generally westerly in direction.

Rainfall: nil to trace

Temperature: max. 11°C to 17°C, min. -1°C to 4°C, ground temperatures down to -6°C at Carlow (Oak Park)

Sunshine: 1 to 13 hours, sunniest at Cork Airport, 1 hour at Belmullet

Sunday 18th: Cloud cleared from the southwest and west to give a day with long hours of sunshine; however, thickening cloud in Ulster gave outbreaks of rain or drizzle there and during the afternoon this tended to move southeastwards into north Leinster and north Connacht. By the end of day rain was falling in north Leinster, while elsewhere there were clear spells and a slight to sharp ground frost. Winds were light, generally northerly in direction.

Rainfall: nil to 3mm, heaviest at Malin Head, nil in the east and south

Temperature: max. 9°C to 15°C, min 2°C to 7°C, ground temperatures down to -3°C at Casement Aerodrome

Sunshine: 3 to 12 hours, sunniest at Valentia, 3 hours at Knock Airport

Monday 19th: Clear spells in the north overnight, while further south it was mainly cloudy with a light northerly breeze. During the morning, skies cleared to give long sunny spells except in the south. Relatively cool throughout. During the evening, skies clouded up in northern areas and there were scattered showers along the northwest fringes. Winds were light, northerly or variable.

Rainfall: nil generally, <1mm at Malin Head

Temperature: max. 9°C to 14°C, min. 1°C to 6°C, ground temperatures down to -4°C at Casement Aerodrome

Sunshine: 2 to 12 hours, sunniest at Belmullet, 2 hours at Cork Airport

Tuesday 20th: Apart from some light showers in the west in the early hours of the morning, it was a dry, cold night with frost inland. The day was dry with spells of sunshine everywhere. Despite the sunshine, it was a cool day with temperatures falling quickly after dark and frost setting in by late evening. Winds were moderate northerly in the north, but lighter further south.

Rainfall: nil generally, <1mm at Belmullet

Temperature: max. 8°C to 13°C, min. -1°C to 5°C, ground temperatures down to -5°C at Carlow (Oak Park)

Sunshine: 7 to 12 hours, sunniest at Belmullet, 7 hours at Casement Aerodrome

Wednesday 21st: Overnight showers along the north coast, dry elsewhere and very cold inland with sub-zero air temperatures. A cool, dry day followed, generally sunny, but somewhat cloudier in the south. Frost set in again quickly by late evening. Winds were light and variable in direction.

Rainfall: nil generally, 2mm at Malin Head

Temperature: max. 8°C to 14°C, min. -4°C to 4°C, ground temperatures down to -8°C at Casement Aerodrome

Sunshine: 4 to 12 hours, sunniest at Belmullet, 4 hours at Valentia

Thursday 22nd: Cold overnight with sub-zero air temperatures in a few places and widespread ground frost. A dry day followed with sunny spells everywhere. Winds were very light and variable in direction.

Rainfall: nil

Temperature: max. 11°C to 14°C, min. -2°C to 6°C, ground temperatures down to -6°C at Casement Aerodrome

Sunshine: 4 to 10 hours, sunniest at Dublin Airport, 4 hours at Knock Airport

Friday 23rd: Dry overnight and during the morning. Patchy light rain and drizzle spread southwards into Ulster and north Connacht during the afternoon; further south it was cold and dry overnight, and continued dry for the rest of the day. Cloudy in the west, with spells of sunshine elsewhere. Winds were light southeasterly, gradually turning more southerly over the western half of the country and increasing moderate in the west.

Rainfall: nil generally, 1mm at Malin Head, <1mm at Belmullet

Temperature: max. 12°C to 17°C, min. 2°C to 9°C, ground temperatures down to -4°C at Johnstown Castle

Sunshine: trace to 10 hours, sunniest at Valentia, trace at Belmullet

Saturday 24th: The morning was dry with sunny spells in the midlands and east, cloudier in the south and west. Rain in the south and southwest by early afternoon, spreading slowly northeastwards across the country. The rain cleared the west coast by early evening, but continued over eastern areas into the night. Winds were light, south to southwesterly in direction.

Rainfall: nil to 9mm, heaviest at Valentia, nil at Casement Aerodrome

Temperature: max. 11°C to 17°C, min. 0°C to 10°C, ground temperatures down to -3°C at Dublin Airport

Sunshine: nil to 3 hours, sunniest at Dublin Airport, nil at Cork Airport

Sunday 25th: Showers overnight, mainly over Ulster. During the morning, showers arrived in the southwest and moved gradually eastwards over the country. Some of the showers were heavy, particularly in the east. Sunny spells in all areas between the showers. Winds were light, southwesterly.

Rainfall: trace to 7mm, heaviest in the east, trace at Belmullet

Temperature: max. 13°C to 17°C, min. 8°C to 11°C, no ground frost

Sunshine: 1 to 9 hours, sunniest at Shannon Airport, 1 hour at Belmullet

Monday 26th: A few showers in Ulster at first, with clear skies in parts of the east and south. Mainly dry with sunny spells and isolated light showers during the day. Becoming mostly cloudy after dark with mist patches returning. Winds were light, southwesterly or variable in direction.

Rainfall: nil to trace

Temperature: max. 14°C to 18°C, min. 7°C to 11°C, no ground frost

Sunshine: 2 to 7 hours, sunniest at Shannon Airport, 2 hours at Valentia

Tuesday 27th: Damp weather with patchy outbreaks of rain or drizzle moved onto Atlantic coasts during the night. This dull, damp weather moved quickly eastwards across the country during the day, bringing outbreaks of rain or drizzle to most areas by afternoon, while rain became heavier and more persistent in Atlantic coastal areas. Some short sunny spells at first, mainly in eastern areas. Winds were light to moderate southerly, increasing moderate to fresh and gusty during the day, easing by evening.

Rainfall: nil to 21mm, heaviest at Valentia, nil at Johnstown Castle

Temperature: max. 12°C to 16°C, min. 7°C to 11°C, no ground frost

Sunshine: nil to 3 hours, sunniest at Dublin Airport, nil in the south and west

Wednesday 28th: Mild and wet overnight with some fog patches. The rain, which was heavy and persistent at times, cleared eastwards during the morning and most of the country had a largely dry, warm and breezy day with sunny spells and scattered showers. West Munster and west Connacht remained cloudy with patchy outbreaks of rain or drizzle for the rest of the day. Winds were south to southwesterly, fresh to strong and gusty, easing later.

Rainfall: trace to 5mm, heaviest at Mullingar, trace at Valentia

Temperature: max. 13°C to 18°C, min. 8°C to 11°C, no ground frost

Sunshine: <1 to 5 hours, sunniest at Dublin Airport, <1 hour at Cork Airport

Thursday 29th: Dry overnight and for much of the morning. Showers developed in the west by mid-morning and become widespread over Ulster, Connacht and Munster by late afternoon. Sunny spells in all areas between the showers. Isolated showers continued in the north, otherwise becoming dry. Winds were moderate, west or southwesterly in direction.

Rainfall: nil to 3mm, heaviest at Ballyhaise, nil in the east

Temperature: max. 12°C to 15°C, min. 4°C to 9°C, ground temperatures down to 0°C at Cork Airport

Sunshine: 3 to 5 hours, sunniest at Casement Aerodrome, 3 hours at Knock Airport

Friday 30th: Well-scattered light showers near Atlantic coasts early in the night. More widespread showers developed during the morning. Some of these showers were heavy in Munster and Connacht and some were thundery with hail also. The showers died out by late evening. Sunny spells throughout, especially in the west. Winds were light to moderate, variable in direction.

Rainfall: 1 to 8mm, heaviest at Casement Aerodrome, 1mm at Carlow (Oak Park)

Temperature: max. 12°C to 15°C, min. 5°C to 9°C, no ground frost

Sunshine: 4 to 11 hours, sunniest at Belmullet, 4 hours at Casement Aerodrome

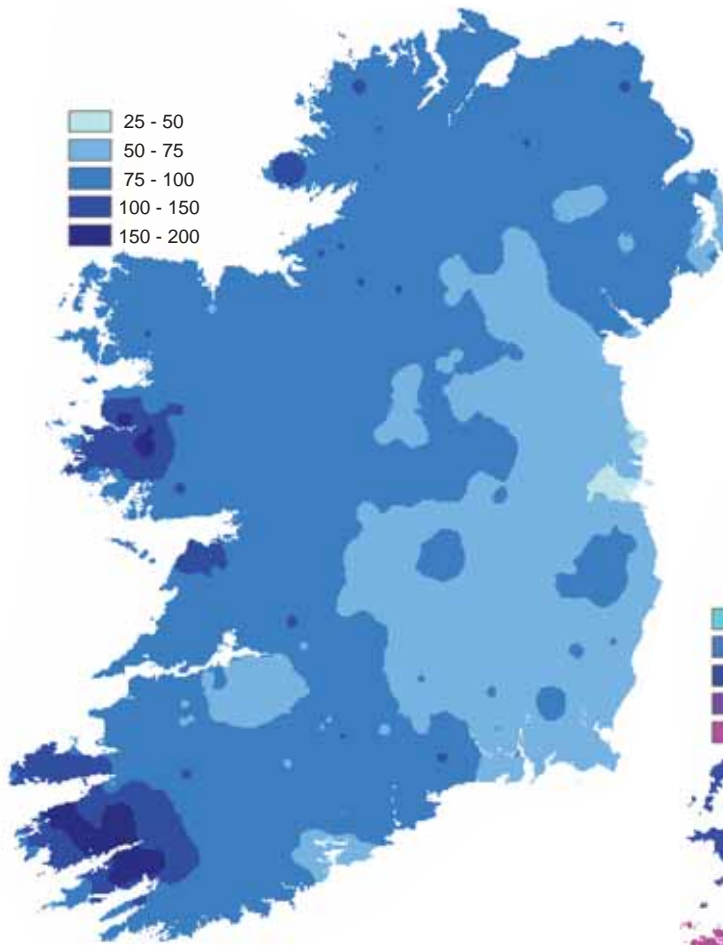
Near normal in most places; dry in east

April rainfall totals were above normal in parts of the west and southwest, but it was a dry month over most of Leinster. Totals ranged from 23mm at Dublin (Merrion Square) to 175mm at Maam Valley, Co. Galway, with percentage of normal values between 44% of normal at both Dublin (Phoenix Park) and Johnstown Castle and 144% at Galway (University College).

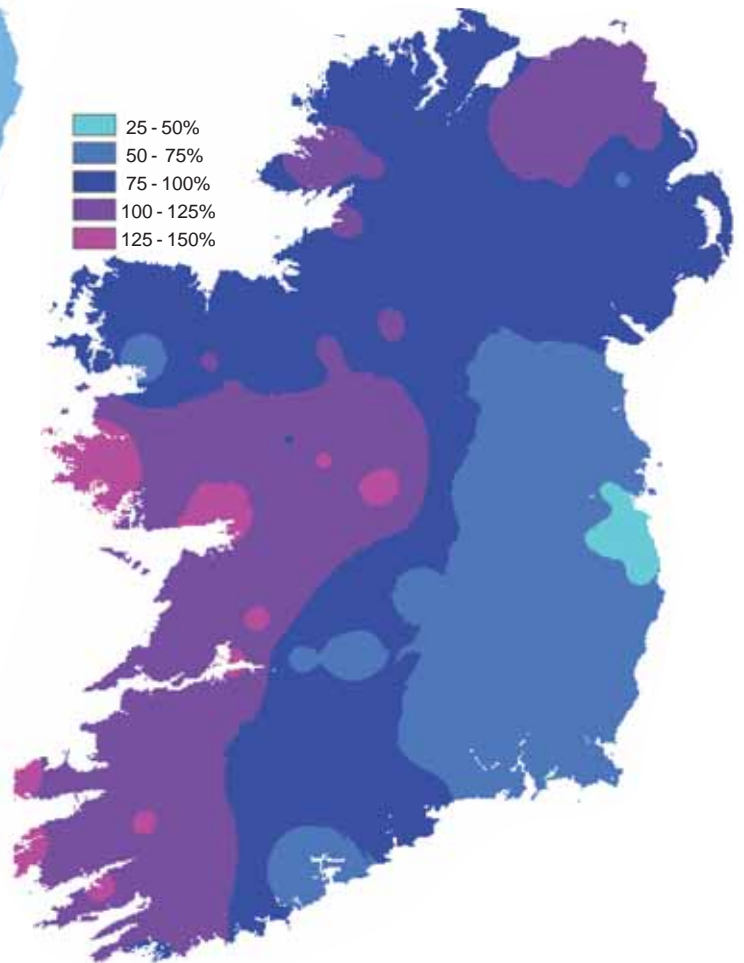
Almost all of April's rainfall was recorded during the first and final weeks, with no measurable rain at some stations between the 7th and 23rd. Almost all stations recorded their highest daily falls in the period between the 2nd and 6th, with some very heavy falls associated with slow-moving frontal systems over Ireland between the 4th and 6th. Maam Valley recorded the highest daily total of the month, 57.2mm on the 4th; Cavan (Loreto College)'s daily fall of 40.7mm on the 5th was its highest for April since the station opened in 1985. There was a total of between eight and 12 wetdays at the majority of stations (*days with 1mm or more of rainfall*), slightly below the normal range for April of 10 to 14.

<i>County/ Station</i>	Total Amount (mm)	% of 1961-90 average	Most in a day / date		Number of Raindays (>0.2mm)	Wetdays (≥1mm)
CO. CARLOW						
CARLOW (OAK PARK)	49.1	102	15.1	5	11	9
CO. CAVAN						
BALLYHAISE	68.2	118	34.5	5	11	10
CAVAN (LORETO COLLEGE)	76.7		40.7	5	13	9
CO. CLARE						
SHANNON AIRPORT	72.8	130	40.2	5	10	9
CARRON	88.9	103	29.7	5	14	12
CO. CORK						
ROCHE'S POINT	35.9	68	11.0	5	12	9
FERMOY (MOOREPARK)	59.4	101	17.0	6	10	8
CORK AIRPORT	40.9	58	18.0	5	12	9
SHERKIN ISLAND	63.3	97	21.9	5	11	8
BALLINCURRIG (PEAFIELD)	49.7		22.0	5	12	9
CO. DONEGAL						
MALIN HEAD	52.7	91	11.6	1	16	13
GLENTIES HATCHERY	92.2	115	34.1	4	16	10
BALLYSHANNON (CATHLEEN'S FALL)	56.8	100	13.0	2	16	11
CO. DUBLIN						
DUBLIN (PHOENIX PARK)	23.1	44	4.1	3	11	8
DUBLIN AIRPORT	26.7		5.2	30	11	9
CASEMENT AERODROME	32.7	64	7.9	30	10	8
DUBLIN (MERRION SQUARE)	22.7	46	6.4	30	9	6
CO. GALWAY						
GALWAY (UNIV. COLL.)	96.4	144	28.1	5	13	11
MAAM VALLEY	174.8		57.2	4	15	12
BALLYGAR	77.4	127	n/a		12	9
CO. KERRY						
VALENTIA OBSERVATORY	98.9	128	34.6	5	10	8
ARDFERT (LISCAHANE)	66.4		22.7	5	12	8
CO. LIMERICK						
MOUNT RUSSELL	71.1		25.8	5	12	11
CO. MAYO						
BELMULLET	56.3	99	14.7	4	14	10
STRAIDE	64.3	100	21.2	5	12	9
KNOCK AIRPORT	68.4		21.4	5	12	9
DELPHI LODGE II	165.8		54.8	4	13	12
CO. MEATH						
WARRENTOWN	33.2	57	7.0	5	11	8
CO. MONAGHAN						
CARRICKMACROSS (DUNOGE)	42.0	70	12.0	5	12	6
CO. OFFALY						
DERRYGREENAGH	37.3	65	9.6	5	11	10
CO. SLIGO						
ARDTARMON	50.9		13.0	2	14	11
CO. TIPPERARY						
GURTEEN	47.9		18.8	5	12	9
FETHARD (PARSONSHILL)	49.2		16.3	5	11	10
CO. WATERFORD						
WATERFORD (TYCOR)	44.7	73	16.5	5	8	7
DUNGARVAN (CARRIGLEA)	59.6		26.5	5	11	9
CO. WESTMEATH						
MULLINGAR	53.6	91	20.3	5	13	11
CO. WEXFORD						
JOHNSTOWN CASTLE	27.9	44	7.6	5	10	7
JOHN F. KENNEDY PARK	47.6	74	18.5	5	11	8
CLONROCHE (KNOXTOWN)	65.8		20.5	5	11	7

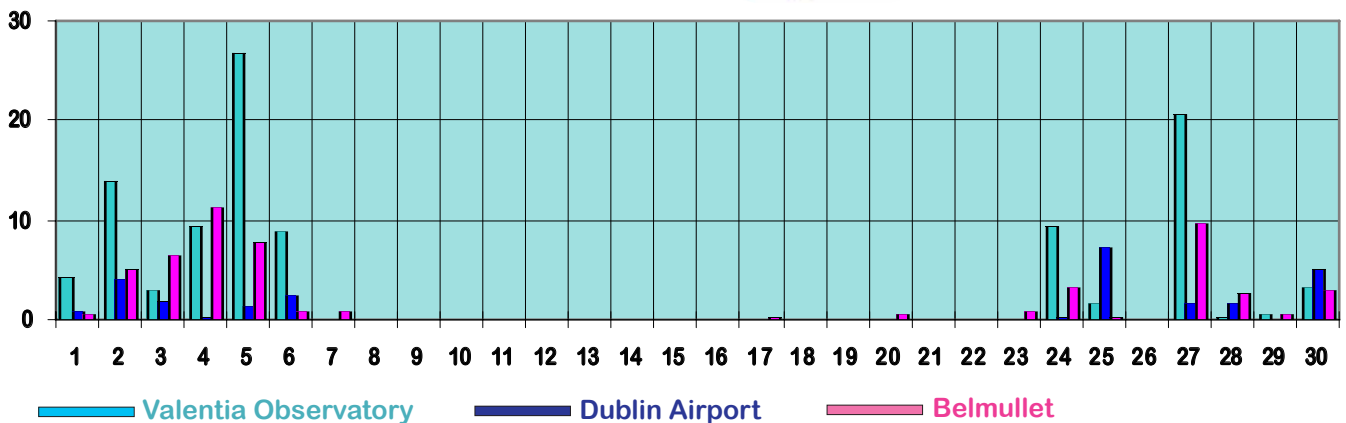
Total rainfall (mm)



Percentage of normal rainfall



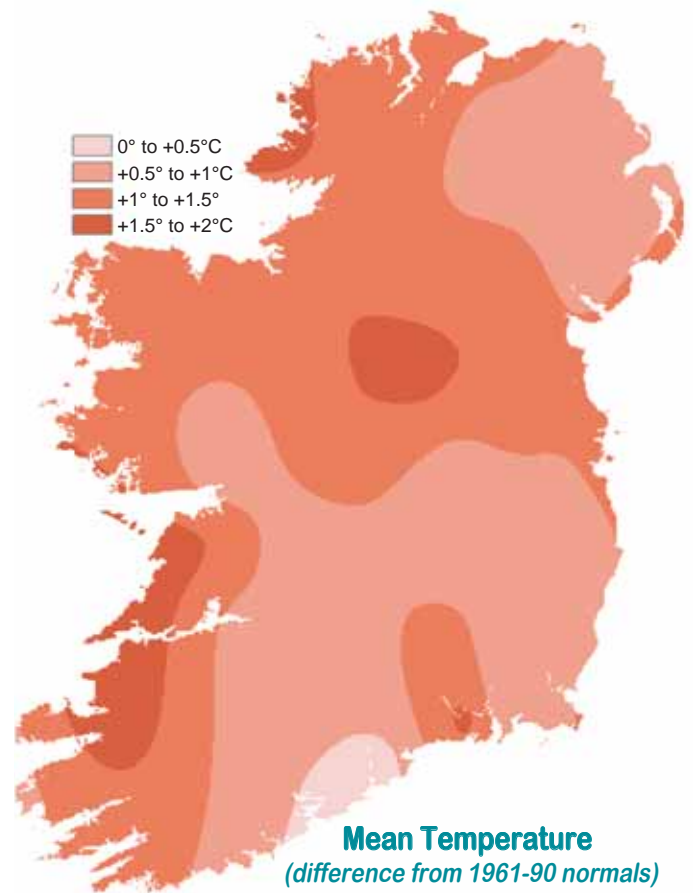
Daily 0-24h rainfall values (mm)



Becoming warm after cold first week

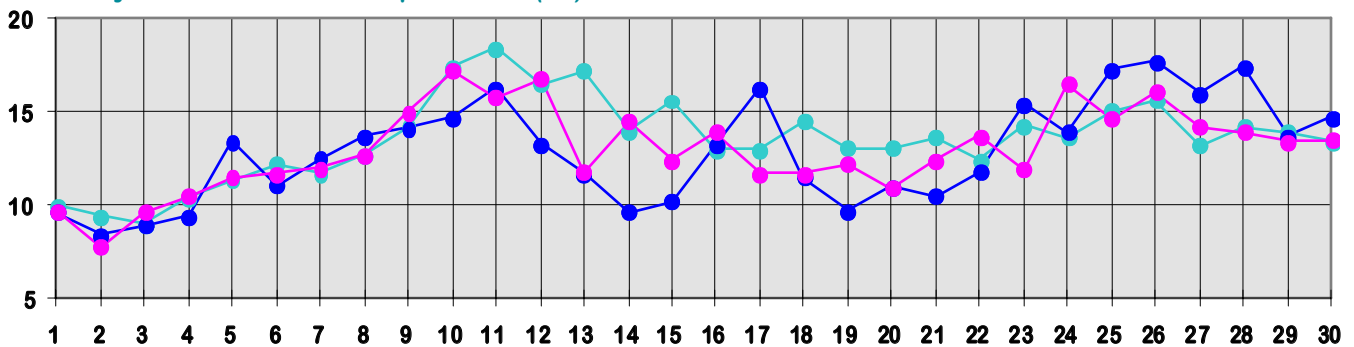
Despite a cold start to the month, relatively mild weather during most of April brought mean temperatures for the month above normal everywhere. Mean monthly air temperatures varied between 7.9°C at Dublin Airport and 10.2°C at Ardfert (Lis cahane), Co. Kerry, around half a degree higher than normal in parts of the east and southeast but close to two degrees above normal in the southwest.

The month began with fairly widespread air frost and some severe ground frost at midland and eastern stations. Other spells of frosty weather during the month were on the 15th/16th and 21st/22nd. There was a total of between 12 and 18 ground frosts during the month in many places, compared with the normal range for April of between eight and 12. Both the month's lowest air temperature of -4.4°C and lowest grass minimum value of -11.5°C were recorded at Straide, Co. Mayo, on the 21st; these were the lowest April values at the station for 10 and 14 years respectively. Most stations recorded their warmest days of the month in the periods 10th/12th and 25th/26; the month's highest temperature of

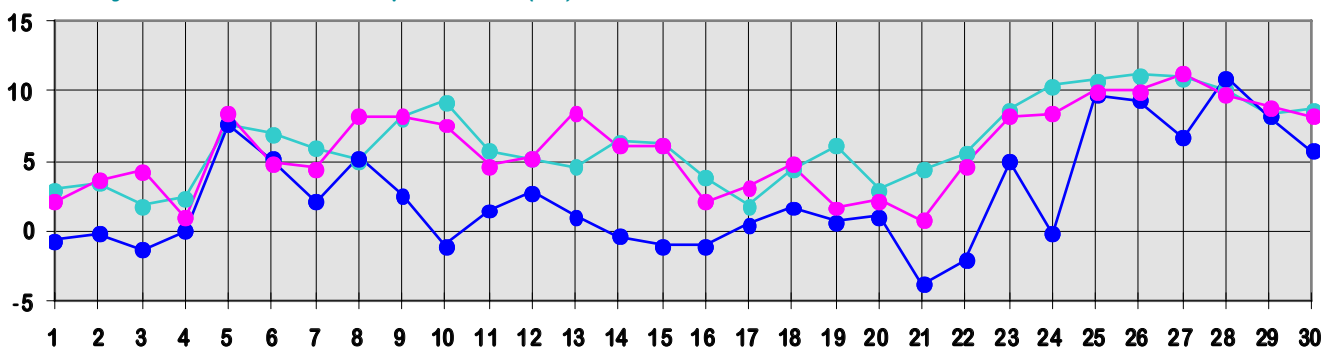


21.0°C was recorded at Ardfert (Lis cahane), Co. Kerry, on the 10th.

Daily 0-24h maximum temperatures (°C)



Daily 0-24h minimum temperatures (°C)



● Valentia Observatory ● Dublin Airport ● Belmullet

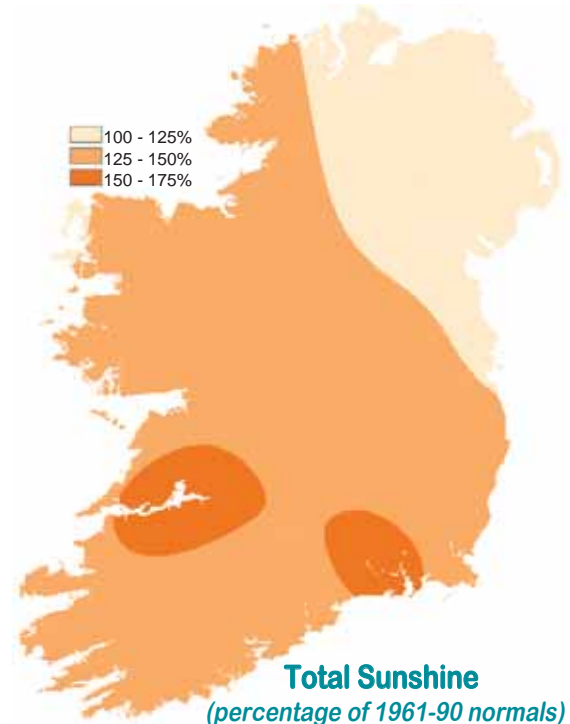
County/ Station	°C											
	Mean max.	Mean min.	Mean/ deviation from 1961-90 average		Highest max./date		Lowest min./date		Lowest grass min./date		Days with air frost ground frost	
CO. CARLOW												
CARLOW (OAK PARK)	13.8	4.1	9.0	0.9	19.3	11	-1.0	3	-5.5	17	2	17
CO. CAVAN												
BALLYHAISE	13.5	3.4	8.5		18.8	11	-2.7	21	-7.8	21	5	16
CAVAN LORETO COLLEGE	13.6	3.6	8.6		18.4	11	-2.1	21	-6.0	21	3	15
CO. CLARE												
SHANNON AIRPORT	14.6	5.2	9.9	1.0	19.2	11	0.3	3	-5.7	4	0	12
CARRON	13.5	4.8	9.2	1.5	17.8	26	-0.4	4	-7.0	4	1	13
CO. CORK												
ROCHE'S POINT	11.8	6.0	8.9	0.3	16.2	11	2.2	1	-1.9	8	0	3
FERMOY (MOOREPARK)	13.8	3.3	8.6	0.6	19.3	11	-1.3	4	-5.4	4	5	17
CORK AIRPORT	12.3	4.7	8.5	0.6	16.7	11	-0.6	1	-2.7	1 17	1	9
SHERKIN ISLAND	13.4	6.3	9.9	1.1	16.2	11	2.3	17	-1.0	4	0	2
BALLINCURRIG (PEAFIELD)	13.9	3.6	8.8		19.7	11	-1.0	4	-1.5	22	3	4
CO. DONEGAL												
MALIN HEAD	11.5	6.3	8.9	1.1	17.5	10	1.2	2	-1.8	2	0	4
GLENTIES HATCHERY	14.2	3.7	9.0	1.5	19.9	10	-3.2	19	-5.1	19	7	13
BALLYSHANNON (CATHLEEN'S FALL)	13.7	4.9	9.3	1.4	19.3	10	-1.2	19			2	
CO. DUBLIN												
DUBLIN (PHOENIX PARK)	13.9	3.9	8.9	1.0	18.7	25 26	-1.3	21	-4.6	21	1	16
DUBLIN AIRPORT	12.9	2.8	7.9		17.7	26	-3.8	21	-7.0	21	9	18
CASEMENT AERODROME	13.3	3.6	8.5	0.8	18.1	26	-3.4	21	-7.9	21	6	18
DUBLIN (MERRION SQUARE)	13.4	6.6	10.0	1.1	19.1	28	1.9	1 4			0	
CO. GALWAY												
GALWAY (UNIV. COLL.)	15.0	4.1	9.6	0.9	19.0	10	-2.4	21	-8.0	21	4	15
MAAM VALLEY	14.4	5.3	9.9		19.9	11	0.4	4	-4.2	4	0	9
BALLYGAR	14.9	3.8	9.4		19.5	26	-2.4	21	-5.0	21	3	12
MACE HEAD	12.7	6.6	9.7		15.9	10	2.6	1	-1.9	17	0	2
CO. KERRY												
VALENTIA OBSERVATORY	13.6	6.4	10.0	1.0	18.4	11	1.8	17 3	-4.3	20	0	13
ARDFERT (LISCAHANE)	15.8	4.5	10.2	1.8	21.0	10	-1.1	3	-3.2	3	1	9
CO. LIMERICK												
MOUNT RUSSELL	13.4	4.7	9.1		18.4	11	-0.1	3	-2.9	22	1	11
CO. MAYO												
BELMULLET	13.0	6.1	9.6	1.2	17.2	10	0.8	21	-3.3	4	0	6
STRAIDE	14.5	4.1	9.3	1.2	20.9	11	-4.4	21	-11.5	21	4	15
KNOCK AIRPORT	12.6	4.1	8.4		18.5	11	-1.1	4	-3.1	21	2	6
DELPHI LODGE II	13.9	5.4	9.7		19.0	12	1.0	17	-2.8	21	0	9
CO. MEATH												
WARRENTOWN	14.1	3.9	9.0	1.3	19.1	26	-3.0	21	-6.3	21	3	16
CO. MONAGHAN												
CARRICKMACROSS (DUNOGE)	13.8	2.9	8.4		17.9	11 12	-2.0	21	-4.6	21	7	20
CO. OFFALY												
DERRYGREENAGH	14.6	1.7	8.2	0.8	19.4	26	-0.1	4	-5.4	21	1	13
CO. SLIGO												
ARDTARMON	13.9	5.7	9.8		18.2	10	0.5	21	-3.9	21	0	9
CO. TIPPERARY												
GURTEEN	13.7	3.5	8.6		18.3	11	-2.1	21	-6.8	21	6	16
FETHARD (PARSONSHILL)	13.9	4.1	9.0		18.8	11	-1.3	4	-2.3	4	3	7
CO. WATERFORD												
WATERFORD (TYCOR)	14.0	5.7	9.9	1.5	19.4	11	1.1	1			0	
DUNGARVAN (CARRIGLEA)	13.8	4.1	9.0	0.5	17.5	11 25	-0.6	22	-1.9	22 23	3	8
CO. WESTMEATH												
MULLINGAR	13.9	3.6	8.8	1.3	18.3	26	-3.5	21	-7.6	21	3	18
CO. WEXFORD												
JOHNSTOWN CASTLE	12.0	5.5	8.8	0.9	15.9	26	-0.1	1	-2.0	8	1	4
JOHN F. KENNEDY PARK	13.1	4.8	9.0	0.8	18.4	11	-1.2	1	-4.0	1	2	8
CLONROCHE (KNOXTOWN)	13.3	3.3	8.3		18.0	11	-1.5	23	-4.6	19 23	3	19

County/ Station	Daily mean (hours/day)	% of average	% of possible	Most in a day/date
CO. CAVAN				
CAVAN LORETO COLLEGE	5.09		43	11.1 11
CO. CLARE				
SHANNON AIRPORT	7.69	156	55	12.7 16
CO. CORK				
CORK AIRPORT	6.60	127	47	13.1 17
SHERKIN ISLAND	8.26	140	59	12.9 14
BALLINCURRIG (PEAFIELD)	7.07			13.0 17
CO. DONEGAL				
MALIN HEAD	5.73	113	41	12.6 16
BALLYSHANNON (CATHLEEN'S FALL)	6.76	143	48	12.7 16
CO. DUBLIN				
DUBLIN AIRPORT	6.44	123	46	13.3 16
CASEMENT AERODROME	6.20	127	44	12.9 17
CO. GALWAY				
GALWAY (UNIV. COLL.)	6.92	140	49	12.7 12 14
CO. KERRY				
VALENTIA OBSERVATORY	7.25	145	53	12.4 12
ARDFERT (LISCAHANE)	7.34		53	12.2 15
CO. MAYO				
BELMULLET	6.45	123	46	12.4 21
STRAIDE	6.68			12.6 12
KNOCK AIRPORT	6.34			13.0 16 12
CO. WATERFORD				
DUNGARVAN (CARRIGLEA)	7.44	147	54	12.6 17
CO. WEXFORD				
JOHN F. KENNEDY PARK	7.45	151	54	12.2 17
CLONROCHE (KNOXTOWN)	7.08			12.7 17

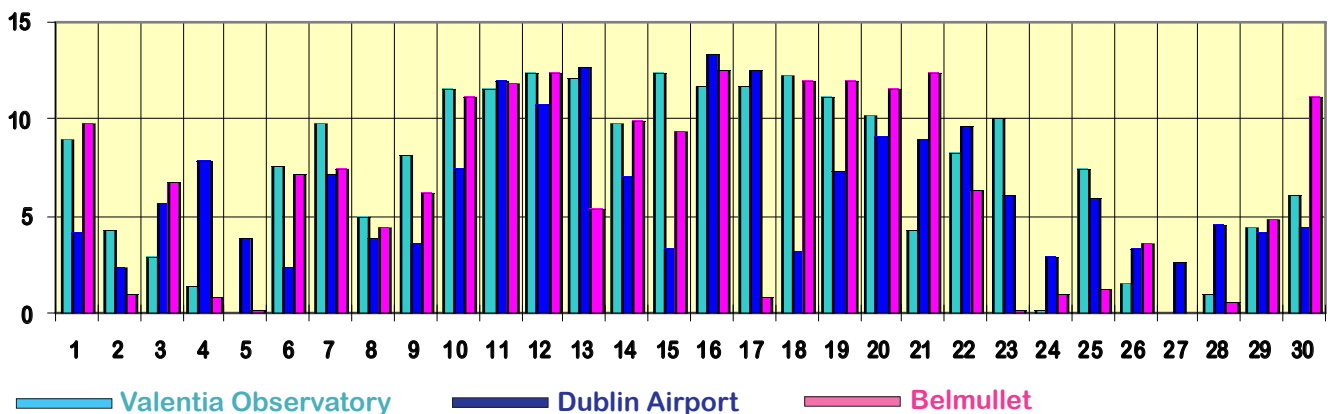
Sunny everywhere, especially in south

Sunshine totals were above normal everywhere and it was an especially sunny month in the south and southeast. Totals ranged from 153 hours at Cavan (Loreto College) to 248 hours at Sherkin Island, Co. Cork, with percentage of normal values between 113% of normal at Malin Head and 156% at Shannon Airport, where it was the sunniest April since the station opened in 1945.

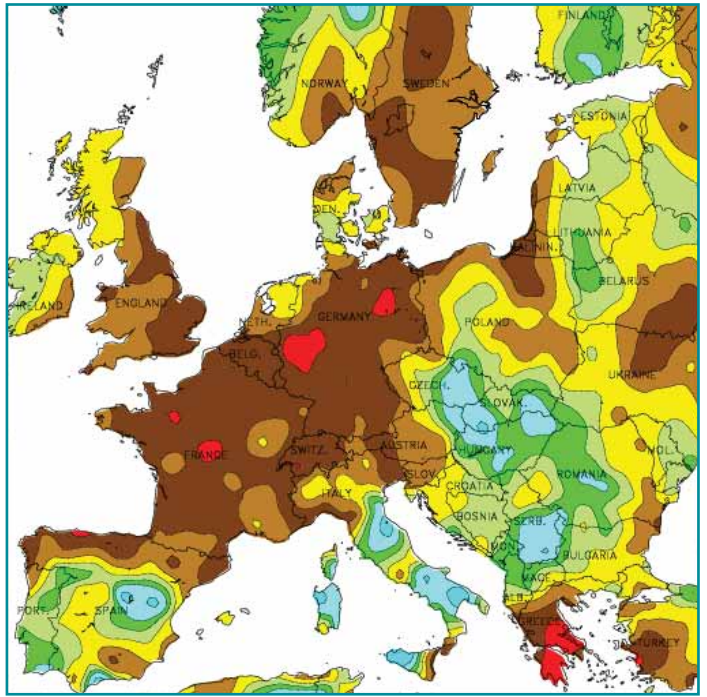
The sunniest period of the month was between the 10th and 21st, when daily values of more than 10 hours were widely recorded; the month's highest daily value of 13.3 hours was measured at Dublin Airport on the 16th, the highest April value there since 1981. Global solar radiation totals were above normal everywhere, ranging from 108% of normal at Malin Head to 116% at Valentia.



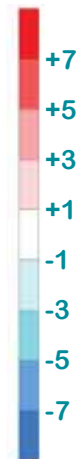
Daily sunshine values(hours)



APRIL RAINFALL
(percentage of 1961-1990 normal)



°C



APRIL MEAN TEMPERATURE
(difference from 1961-1990 normal)

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

Although winter 2009/10 was much colder than normal over the United States, with a number of record-breaking snowstorms, unusual warmth during April led to both low snowfall amounts and rapid melt of existing snow. Across North America, snow cover for April was 2.2 million square kilometers below average- the lowest April snow cover extent since satellite records began in 1967.

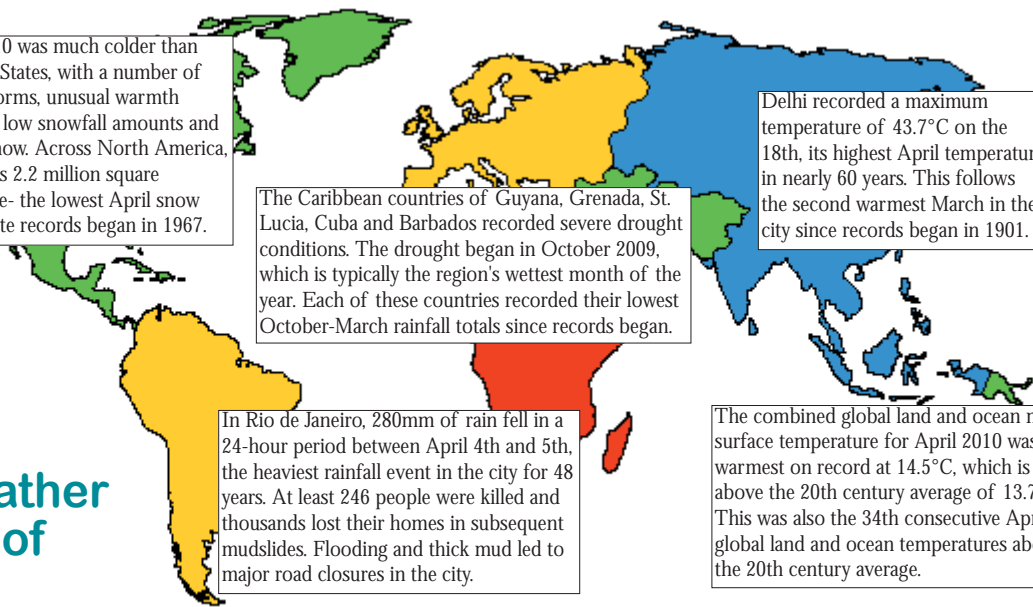
The Caribbean countries of Guyana, Grenada, St. Lucia, Cuba and Barbados recorded severe drought conditions. The drought began in October 2009, which is typically the region's wettest month of the year. Each of these countries recorded their lowest October-March rainfall totals since records began.

Delhi recorded a maximum temperature of 43.7°C on the 18th, its highest April temperature in nearly 60 years. This follows the second warmest March in the city since records began in 1901.

In Rio de Janeiro, 280mm of rain fell in a 24-hour period between April 4th and 5th, the heaviest rainfall event in the city for 48 years. At least 246 people were killed and thousands lost their homes in subsequent mudslides. Flooding and thick mud led to major road closures in the city.

The combined global land and ocean mean surface temperature for April 2010 was the warmest on record at 14.5°C, which is 0.76°C above the 20th century average of 13.7°C. This was also the 34th consecutive April with global land and ocean temperatures above the 20th century average.

Global weather highlights of the month

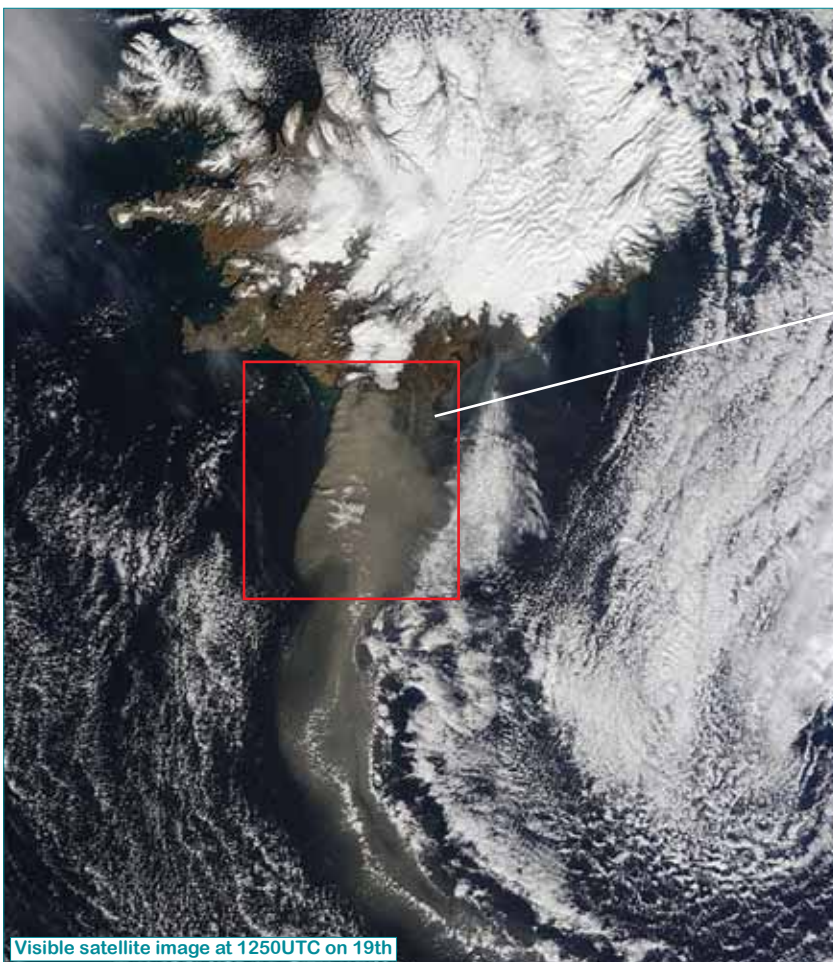


WIDESPREAD DISRUPTION OF AIR TRAVEL CAUSED BY VOLCANIC ASH

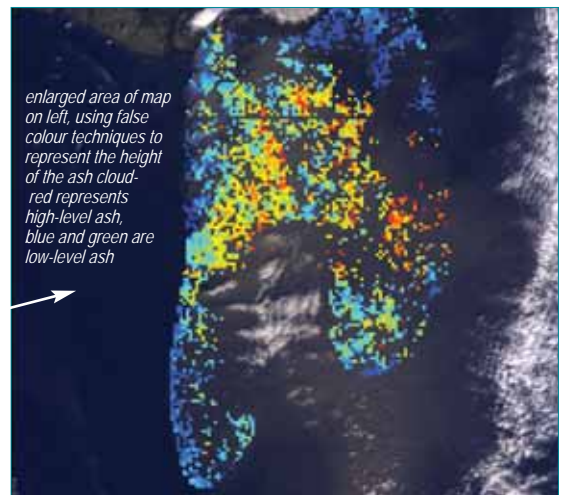
The ash cloud from the eruption of Iceland's Eyjafjallajökull volcano brought air traffic to a halt across most of Europe during the third week of the month, stranding hundreds of thousands of passengers. Having begun as a relatively minor event, the eruption entered an explosive phase during mid-April, as gas and magma melted the deep layer of ice and snow that had capped the volcano, sending microscopic ash and glass fragments through the atmosphere to heights of around 10 kilometers, the cruising height of most jet aircraft. The eruption also partially melted the Eyjafjallajökull glacier, leading to flash floods that covered local roads and threatened to damage bridges and other structures. About 800 people were evacuated from their homes in Hvolsvollur, a small town situated beneath the glacier.



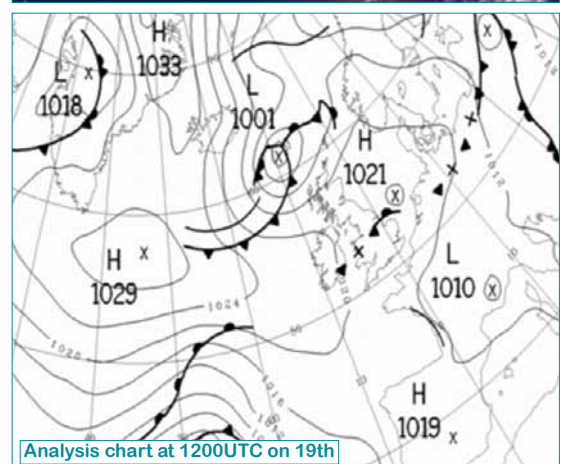
As shown by the charts below, the transport of ash from Iceland towards Ireland and Britain was facilitated by the weather pattern at the time. Better measurements of the location, size and thickness of volcanic ash may help minimise the disruption of air travel during future eruptions. Forecasters would be able to better predict its movement if they knew the height of an ash cloud over a widespread area, information only possible from satellite views. In the enlarged section (below right) of the main natural-colour satellite image from April 19th, colour represents height: blue indicates low elevation ash, green and yellow indicate ash at an elevation of about 3,000 meters and red indicates ash at or above 4,000 meters. (images courtesy NASA Earth Observatory, Icelandic Met Office)



Visible satellite image at 1250UTC on 19th



enlarged area of map on left, using false colour techniques to represent the height of the ash cloud - red represents high-level ash, blue and green are low-level ash



Analysis chart at 1200UTC on 19th