

Monthly Weather Bulletin

No. 228
APRIL 2005



Although much of April was unsettled, it was also a relatively sunny month, especially in western areas (picture: Don MacMonagle photography)

VERY WET IN PLACES; MILD AND MAINLY SUNNY

Summary: After a series of drier than normal months in most places extending back to last November, rainfall totals for April were above normal almost everywhere. It was the wettest April for 6 or 7 years at many stations and the wettest since 1994 at Malin Head. Much of the rain which fell during the month was showery in nature and was thundery at times; heavy falls were measured on a number of days, particularly on the 5th/6th and 17th. Kilkenny measured 26.7mm on the 17th, the highest daily fall for April at the station since it opened in 1957. The number of wetdays during the month (days with 1mm or more rainfall) was also higher than normal; there were between 14 and 19 wetdays recorded at the majority of stations compared with the normal range for April of 10 to 14 wetdays. There were spells of cold weather during April, especially between the 4th and 8th when wintry showers were widespread, but mean air temperatures for the month as a whole were above normal everywhere. The month's highest temperatures were recorded at the beginning and end of the month. Air frost was measured at some inland

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Deep low on 28th- page 2

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2004 Global weather summary

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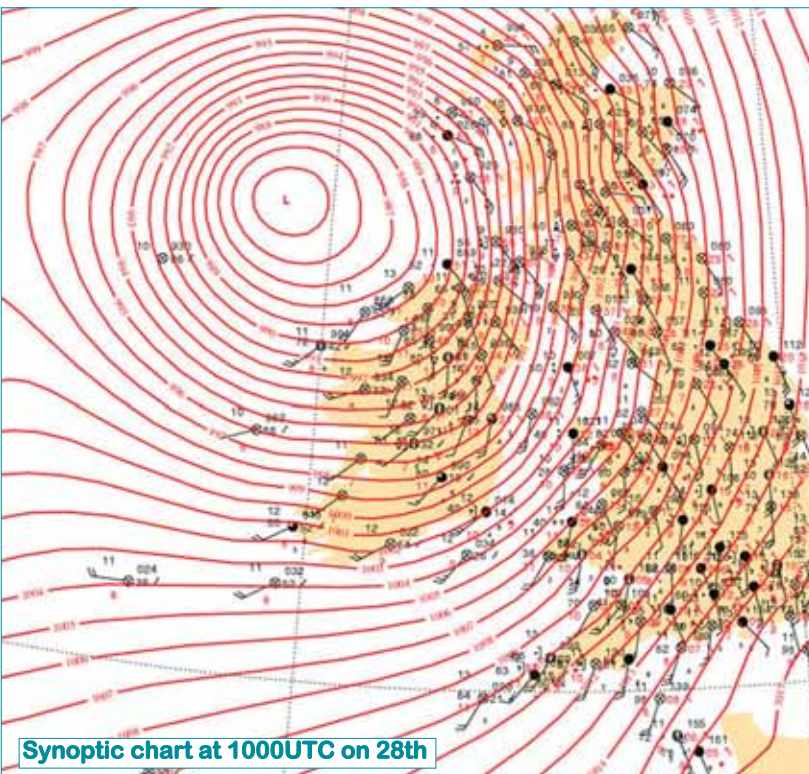
Notes on the tables and map
showing location of stations
appear in January issue



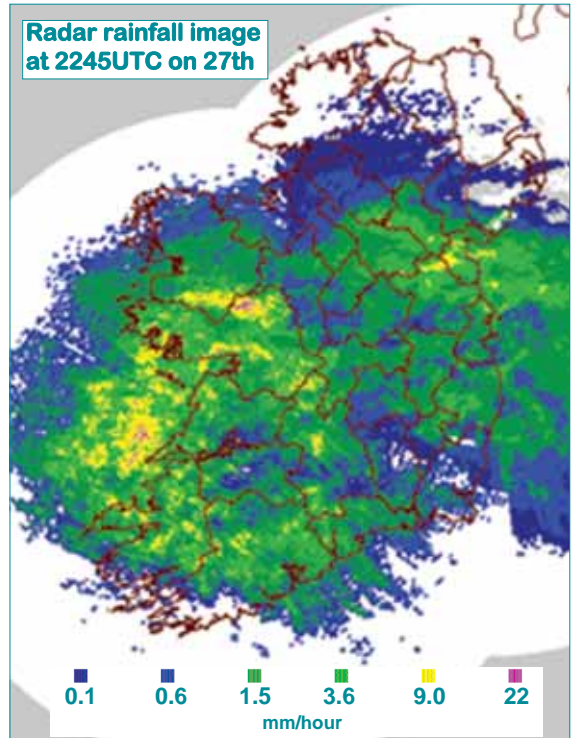
Visible satellite image at 1330UTC on 28th

A depression of central pressure 985hPa moved close to the northwest coast on the 27th and 28th, bringing strong southwesterly winds and a spell of heavy rain to most areas. Malin Head recorded the strongest gust of the month, 58 knots (107 km/hr), around midday on the 28th, while daily rainfall values of around 30mm were measured in parts of the southeast, south and west.

(satellite image above courtesy Wokingham web page, www.btinternet.com/~wokingham.weather/wwwp)



Synoptic chart at 1000UTC on 28th



stations at times between the 8th and 19th, while ground frost was recorded at almost all stations on the 8th, 9th, 16th and 19th. There were between 15 and 18 days with ground frost during the month at most inland stations, more than the normal April range of 10 to 12. Sunshine totals were close to normal generally, but it was a relatively sunny month in western areas. The sunniest days at most stations were in the period 19th to 21st.

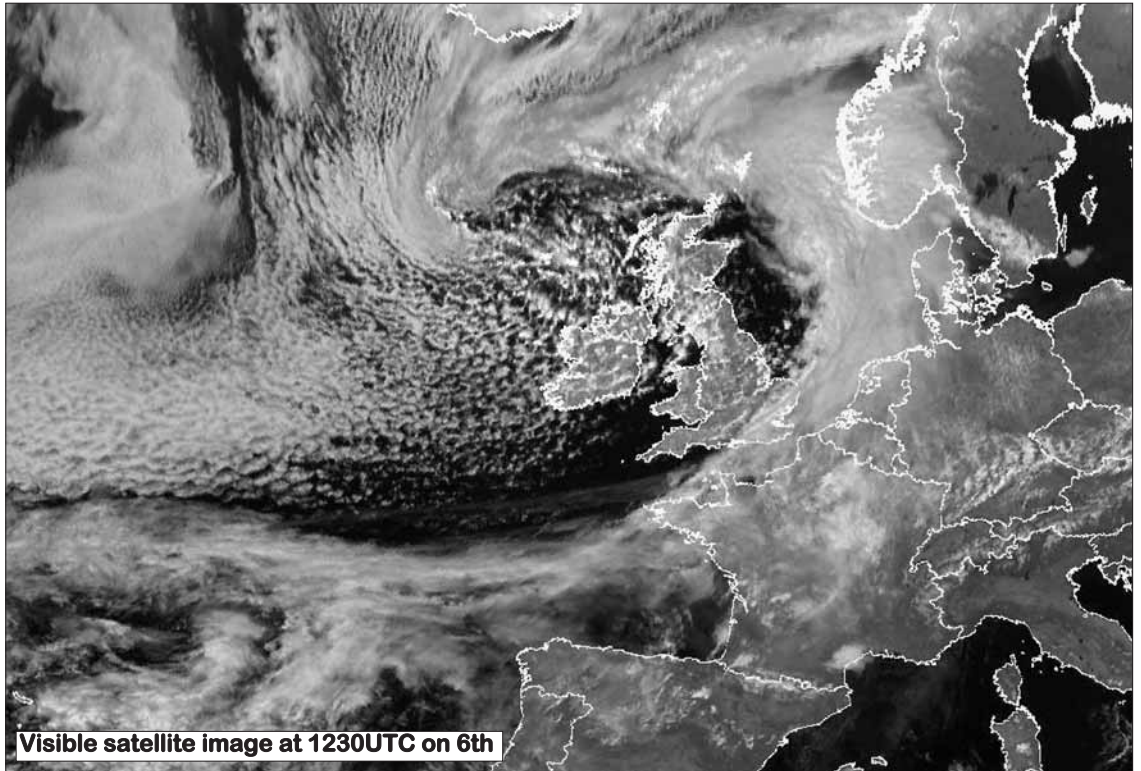
1st to 2nd: A mild southerly airflow over Ireland with spells of rain in places, heaviest in eastern areas on the 1st.

3rd to 8th: Low pressure centred to the north or northwest brought a much cooler westerly, later veering northwesterly, airstream across the country. Showers were widespread during the period, heavy in many places on the 5th and 6th and becoming increasingly wintry as temperatures fell. Most stations recorded gale gusts between the 6th and 8th.

9th to 19th: Temperatures recovered to near-normal values, while shower activity decreased in most places. Exceptions were on the 13th, when a shallow depression over Ireland brought heavy showers in the north and west, and also on the 17th,

Right

Between the 3rd and 8th, low pressure to the north of Ireland directed an arctic airstream over the country, bringing wintry showers and night frosts.



Visible satellite image at 1230UTC on 6th

when a band of heavy rain moved eastwards across all areas.

20th to 30th: Temperatures rose above normal, as winds settled into a mainly southerly direction. The early part of the period was relatively dry and sunny with only occasional showers, but widespread rain or showers developed from the 25th onwards, bringing heaviest falls to the west and south.

Wind and elements: Mean windspeeds for the month were between 8 and 11 knots at most stations (15 and 20 km/hr)

and up to 15 knots (28 km/hr) at Malin Head, close to normal values for April. The strongest winds of the month were measured on the 6th, 7th, 17th and 28th, with the highest gust, 58 knots (107 km/hr), recorded at Malin Head on the 28th. There was thunderstorm activity on the 4th, 6th, 13th, 14th, 16th and in the periods 18th to 20th and 25th to 27th. Snow showers were recorded in the period 6th to 8th; they were particularly widespread on the 8th. Hail showers were recorded in the periods 4th to 9th, 12th to 15th, 18th to 19th and 26th to 27th.

A dust devil on Mars

Right

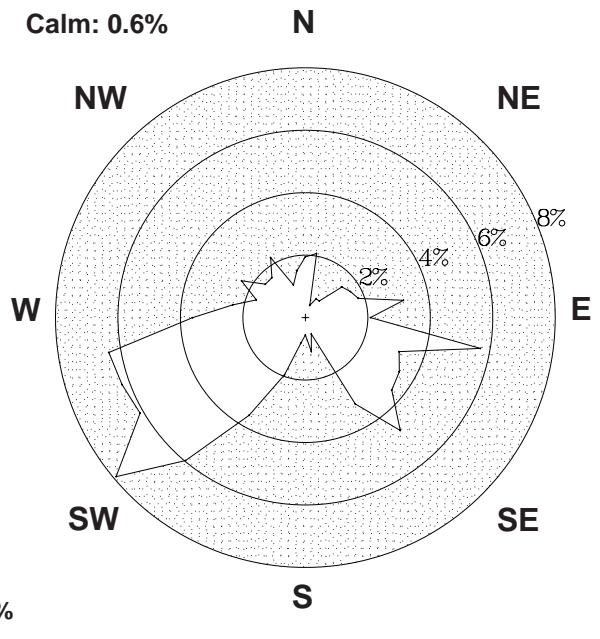
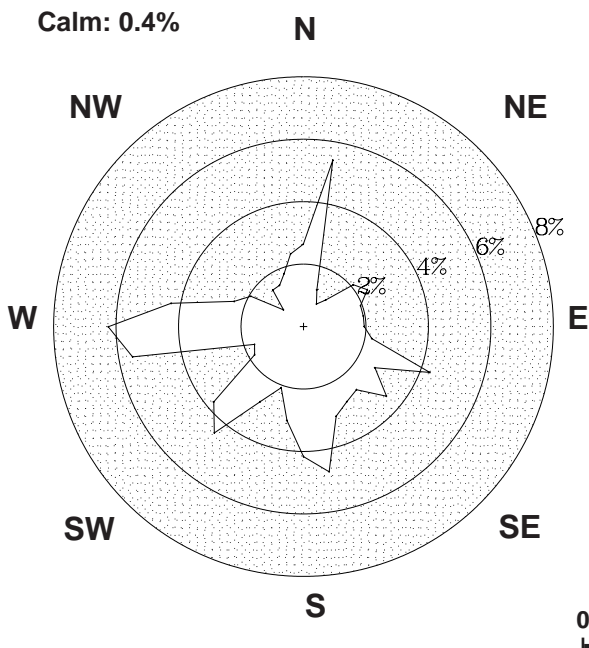
Although the atmosphere on Mars is extremely thin compared to that of Earth, the uneven heating of the carbon dioxide atmosphere causes tornado-like features to form on Mars also. This dust devil was observed travelling across the planet's surface during NASA's Mars Exploration Rover mission. It measures a few metres in diameter, but some as wide as several kilometres are known to have occurred there in the past. (Image courtesy: NASA / JPL)



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. CLARE SHANNON AIRPORT	9.4	240°	37	6/22	230°	45	6/2145	1	6	34	0	0	5	0	1
					230°	45	28/0821								
CO. CORK CORK AIRPORT	9.6	320°	26	7/15	160°	43	28/0259	0	6	30	1	0	2	0	12
CO. DONEGAL MALIN HEAD	14.4	210°	43	28/12	210°	58	28/1158	4	13	98	2	0	6	0	0
CO. DUBLIN CASEMENT AERODROME	9.9	170°	33	17/12	170°	46	17/1044	0	5	24	1	0	5	0	1
DUBLIN AIRPORT	11.1	140°	29	17/11	320°	43	7/1519	0	6	28	1	0	5	0	2
CO. KERRY VALENTIA OBSERVATORY	9.5	280°	33	6/23	280°	52	6/1616	0	9	46	0	0	5	0	0
CO. KILKENNY KILKENNY	7.6	260°	24	6/16	250°	39	6/1425	0	4	11	n/a	0	-----	n/a	-----
					340°	39	7/1616								
CO. MAYO BELMULLET	12.3	350°	31	7/19	350°	54	7/1834	0	11	110	2	0	8	1	0
		250°	31	28/09											
CONNACHT AIRPORT	9.7	190°	32	28/09	270°	46	6/1351	0	6	36	3	1	3	0	8
					330°	46	7/1813								
CO. MONAGHAN CLONES	8.3	210°	27	28/11	220°	42	28/1018	0	5	16	n/a	0	-----	n/a	-----
CO. OFFALY BIRR	7.7	230°	25	28/10	140°	40	17/0522	0	4	8	n/a	0	-----	n/a	-----
					230°	40	28/1109								
CO. WESTMEATH MULLINGAR II	7.6	230°	23	28/12	150°	37	17/1003	0	3	8	n/a	0	-----	n/a	-----
CO. WEXFORD ROSSLARE	10.4	040°	33	15/08	260°	50	6/2349	0	8	80	1	0	1	0	1

Valentia Observatory

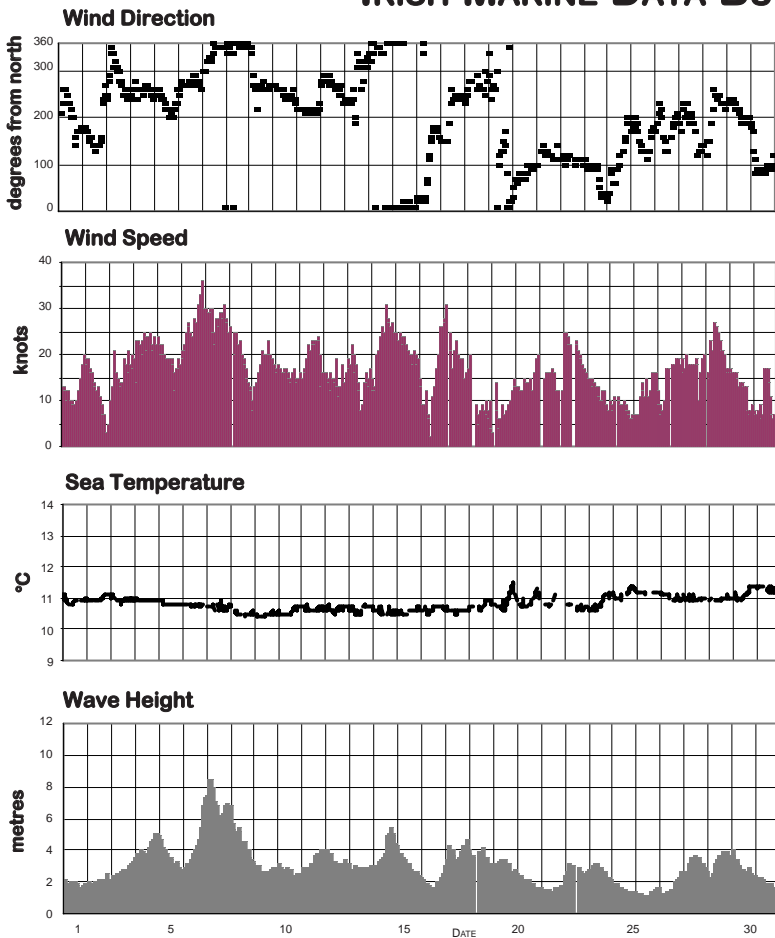
Dublin Airport



0 1 2 3 4%

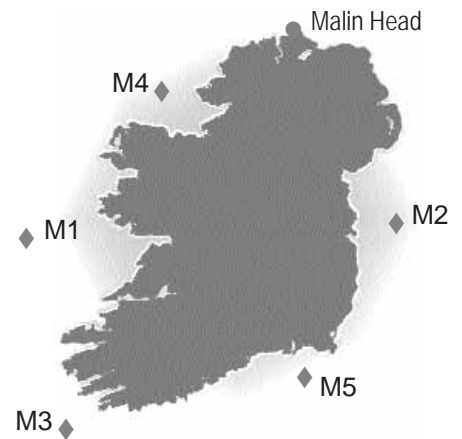
FREQUENCY OF WIND DIRECTION

MARINE OBSERVATIONS FROM IRISH MARINE DATA BUOY NETWORK



Buoy	Sea surface temp. (°C)	Mean wind speed (knots)	Max. 10-min wind (knots)	Mean wave height (m.)	Max. wave height (m.)
M1	10.8	16.3	36	3.0	8.5
M2	8.6	15.4	32	1.2	3.6
M3	10.9	15.7	31	2.8	8.2
M4	9.1	11.7	31	1.8	4.9
M5	9.8	15.2	33	1.7	4.7
Malin Head	10.0 (1.9°C above normal)				

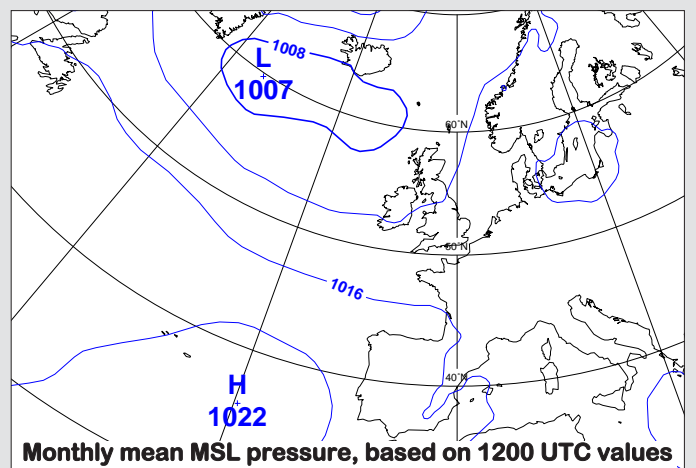
Summary of Mean Monthly Values



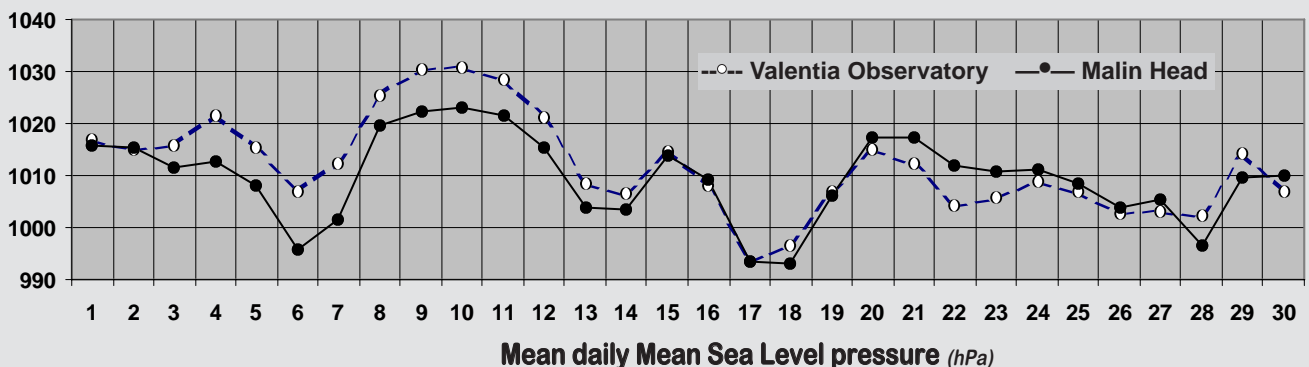
Hourly wind and wave conditions at M1 (53°07'N, 11°12'W)

MEAN ATMOSPHERIC PRESSURE

Mean sea level pressure values for the month ranged from 1010hPa in the north to over 1012hPa in the south, between 4hPa and 5hPa lower than normal generally. Pressure values were above normal during most of the first half of the month, however, with the highest pressure, 1032.0hPa, measured at both Valentia Observatory on the 10th and at Cork Airport on the 10th and 11th. Pressure fell sharply on the 17th, when the month's lowest value, 983.0hPa, was recorded at Belmullet.

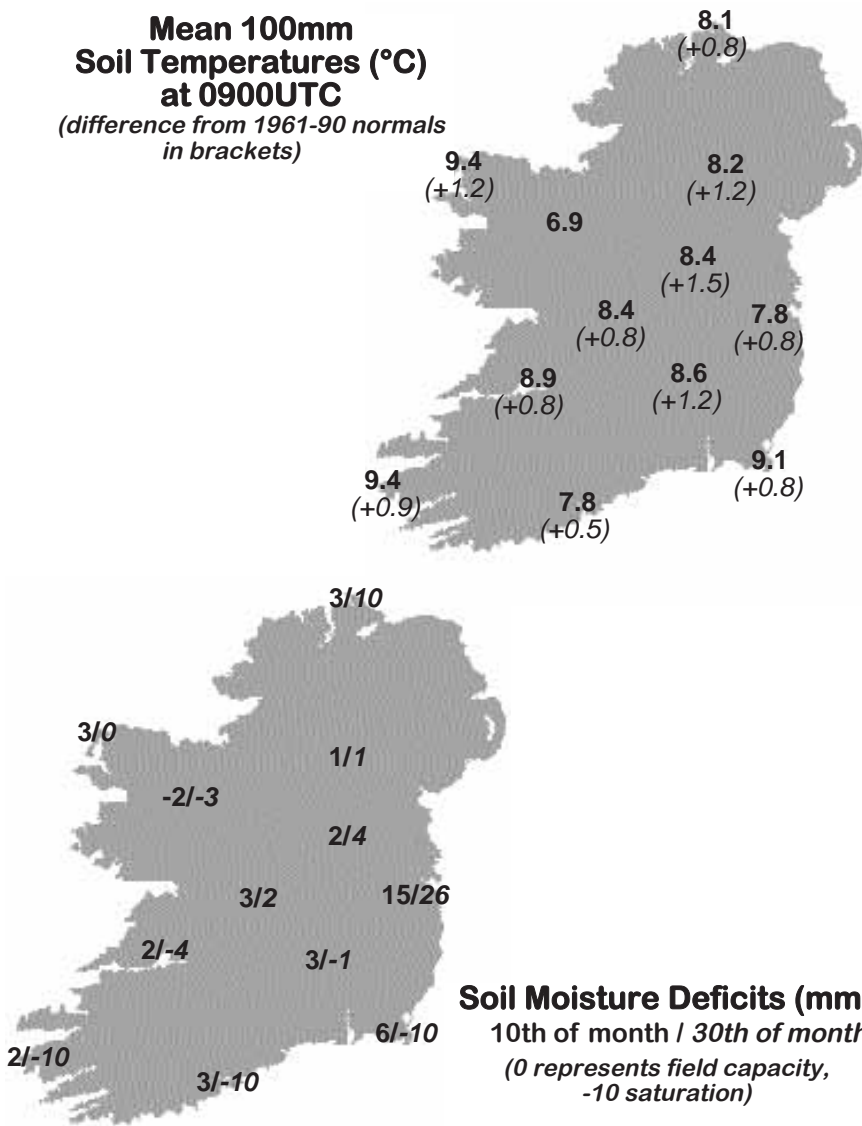


Monthly mean MSL pressure, based on 1200 UTC values



Mean daily Mean Sea Level pressure (hPa)

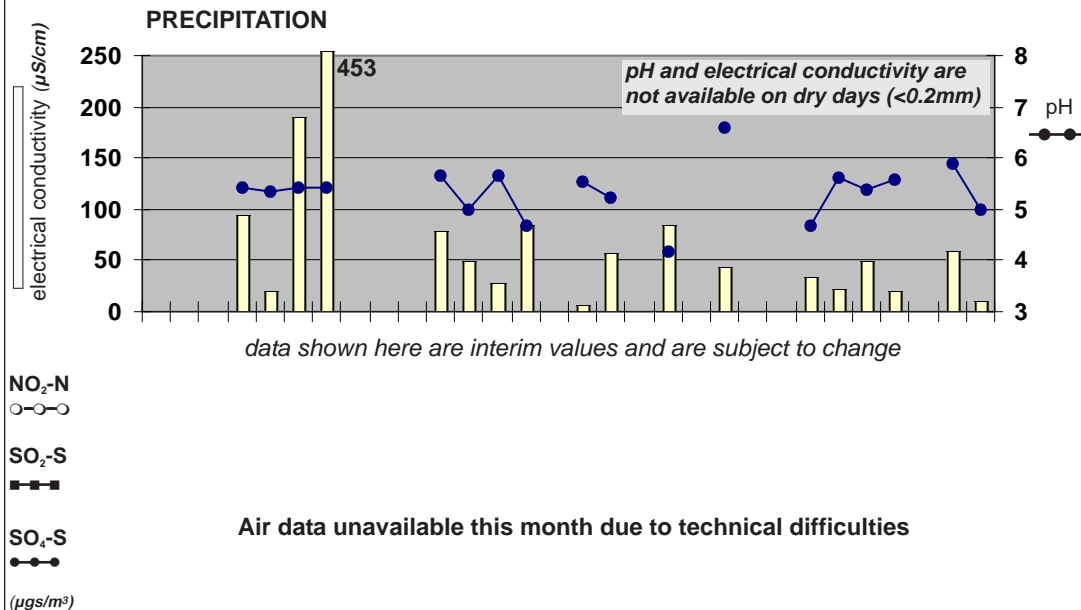
Mean 100mm Soil Temperatures (°C) at 0900UTC
(difference from 1961-90 normals in brackets)



Soil Temperatures at 0900UTC

County/ Station	°C		
	100mm	200mm	300mm
CO. CLARE			
SHANNON AIRPORT	8.9	9.3	10.0
CARRON	9.2		9.8
CO. CORK			
PERMOY (MOORE PARK)	9.5	9.5	10.0
CORK AIRPORT	7.8	8.3	8.4
SHERKIN ISLAND	10.2		10.8
BALLINCURRIG (PEAFIELD)	8.0	8.2	9.4
CO. DONEGAL			
MALIN HEAD	8.1	8.5	9.4
CO. DUBLIN			
DUBLIN AIRPORT	7.9	8.2	8.8
CASEMENT AERODROME	7.8	8.4	9.1
CO. KERRY			
VALENTIA OBSERVATORY	9.4	9.9	11.3
CO. KILKENNY			
KILKENNY	8.6	9.1	10.1
CO. LEITRIM			
BALLINAMORE	8.9	9.1	9.4
CO. LIMERICK			
MOUNT RUSSELL	7.2	8.1	
CO. LOUTH			
ARDEE (BOHARNAMOE)	8.5	8.7	8.9
CO. MAYO			
BELMULLET	9.4	10.4	11.4
STRAIDE	8.6		
CONNAUGHT AIRPORT	6.9	7.7	8.6
CO. MEATH			
WARRENSTOWN	8.1	8.9	9.6
CO. MONAGHAN			
CLONES	8.2	8.6	9.1
CO. OFFALY			
BIRR	8.4	9.0	10.3
CO. TIPPERARY			
FETHARD (PARSONSHILL)	7.4	8.4	
DUNGARVAN (CARRIGLEA)		9.7	10.2
CO. WESTMEATH			
MULLINGAR II	8.4	8.9	9.9
CO. WEXFORD			
JOHNSTOWN CASTLE	8.8	8.9	9.3
ROSSLARE	9.1	9.6	10.6
JOHN F. KENNEDY PARK	8.9	9.3	10.5
CLONROCHE (KNOXTOWN)	8.0	8.5	9.5

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.

Air data unavailable this month due to technical difficulties

10-DAY VALUES FOR SELECTED AGROMETEOROLOGICAL STATIONS		RAINFALL				TEMPERATURE										SUNSHINE		P.E. (Penman) (mm)					
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	mean wind speed (m/s) 2m a.g.l.	P.E. (Penman) (mm)
Fermoy	11-20	30.2	-	6	4	12.7	2.9	7.8	-	0.5	18	0	39	7	-2.3	16	7	9.1	9.7	49.6	-	1.6	-
	21-end	35.3	-	5	5	14.5	5.8	10.2	-	-0.7	21	1	60	15	-3.1	21	2	10.9	11.0	44.1	-	2.1	-
	month	82.8	140	16	12	12.9	4.1	8.5	0.5	-0.7	21	2	134	27	-4.2	9	14	9.5	10.0	146.3	102	2.3	46
Co. Donegal	1-10	55.4	-	7	7	11.2	4.7	8.0	-	0.1	8	0	38	6	-0.3	8	1	-	-	-	-	-	-
Glenties	11-20	74.7	-	9	7	11.3	2.6	7.0	-	-0.2	19	1	31	4	-1.1	20	3	-	-	-	-	-	-
	21-end	39.5	-	6	5	14.5	6.6	10.6	-	3.9	30	0	62	15	0.2	25	0	-	-	-	-	-	-
	month	169.6	212	22	19	12.3	4.6	8.5	0.5	-0.2	19	1	131	25	-1.1	20	4	-	-	-	-	-	-
Co. Kerry	1-10	31.5	-	8	5	13.0	4.9	9.0	-	0.4	9	0	47	10	-4.3	9	3	-	-	54.3	-	-	-
Ardfert	11-20	38.0	-	7	6	13.2	3.6	8.4	-	-1.0	16	1	44	9	-5.1	16	7	-	-	67.9	-	-	-
	21-end	33.5	-	9	7	16.2	6.2	11.2	-	3.6	21	0	68	22	-1.6	21	2	-	-	62.6	-	-	-
	month	103.0	-	24	18	14.1	4.9	9.5	1.1	-1.0	16	1	159	41	-5.1	16	12	-	-	184.8	-	-	-
Co. Leitrim	1-10	34.2	-	7	6	11.0	3.7	7.4	-	0.4	8	0	33	5	-1.6	8	3	8.3	9.1	45.7	-	-	-
Ballinamore	11-20	41.0	-	7	6	10.9	3.0	7.0	-	-2.4	19	1	30	3	-4.4	19	5	8.4	8.9	33.7	-	-	-
	21-end	41.6	-	6	6	14.4	5.5	10.0	-	0.2	25	0	57	13	-2.4	25	2	10.2	10.1	58.7	-	-	-
	month	116.8	174	20	18	12.1	4.1	8.1	0.4	-2.4	19	1	120	22	-4.4	19	10	8.9	9.4	138.1	101	-	-
Co. Louth	1-10	16.3	-	8	3	11.7	4.3	8.0	-	0.9	7	0	39	6	-0.6	7	3	7.7	8.5	-	-	-	-
Ardee	11-20	24.7	-	10	5	11.2	3.5	7.4	-	-0.4	19	1	33	4	-0.5	16	1	7.8	8.3	-	-	-	-
	21-end	18.4	-	8	4	14.3	6.7	10.5	-	0.6	25	0	62	16	1.2	25	0	9.9	9.8	-	-	-	-
	month	59.4	108	26	12	12.4	4.8	8.6	1.1	-0.4	19	1	133	26	-0.6	7	4	8.5	8.9	-	-	-	-
Co. Waterford	1-10	33.4	-	3	2	12.9	3.9	8.4	-	0.5	9	0	43	8	-2.1	9	2	-	9.6	48.3	-	1.9	-
Dungarvan	11-20	50.9	-	8	7	13.0	3.9	8.5	-	0.4	14	0	44	9	-1.0	14	3	-	9.7	58.2	-	1.5	-
	21-end	64.5	-	7	6	14.3	6.7	10.5	-	3.1	25	0	62	16	0.0	21	0	-	11.2	57.3	-	2.2	-
	month	148.8	-	18	15	13.4	4.8	9.1	0.6	0.4	14	0	149	33	-2.1	9	5	-	10.2	163.8	108	1.9	49
Co. Wexford	1-10	22.1	-	4	2	11.8	4.5	8.2	-	1.6	9	0	40	5	-0.7	9	1	7.7	8.7	44.9	-	2.6	-
Johnstown Castle	11-20	62.5	-	8	8	11.2	4.7	8.0	-	2.5	16	0	37	4	0.8	19	0	8.3	9.0	47.8	-	2.3	-
	21-end	46.3	-	7	6	13.3	7.3	10.3	-	4.6	27	0	59	11	2.5	27	0	10.3	10.4	47.9	-	2.5	-
	month	130.9	205	19	16	12.1	5.5	8.8	0.9	1.6	9	0	136	20	-0.7	9	1	8.8	9.3	140.6	85	2.5	44

MEASURED POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE

SEE BACK PAGE OF JANUARY ISSUE FOR NOTES ON THE DATA

County/ Station	Period	P.E. (mm) Amount	Soil Moisture (mm) Deficit	Accumulated Deficit	Surplus
Co. Kerry	1-10	13.7	-	0	50
Valentia Obs.	11-20	21.2	-	0	30
	21-end	26.4	-	0	29
	month	61.3			
Co. Leitrim	1-10	4.6	-	0	30
Ballinamore	11-20		not available		
	21-end	24.9	-	0	17
	month	n/a			
Co. Wexford	1-10	20.3	-	0	7
Johnstown Castle	11-20	40.9	-	0	22
	21-end	21.4	-	0	24
	month	82.6			

County/ Station	GLOBAL SOLAR RADIATION (MJ/sq. m)			total for month	P.E. (Penman) total for month(mm)
	1-10	11-20	21-end		
Co. Donegal					
Malin Head	114.96	113.73	156.42	385.11	65
Co. Dublin					
Dublin Airport	127.97	101.52	152.93	382.42	53
Co. Kerry					
Valentia Obs.	127.84	147.74	138.95	414.53	65
Co. Kilkenny					
Kilkenny	122.09	132.09	135.46	389.64	56
Co. Mayo					
Belmullet	134.79	143.67	147.81	426.27	64
Co. Monaghan					
Clones	109.16	101.18	145.56	355.90	53
Co. Offaly					
Birr	117.00	136.70	138.67	392.37	n/a

Friday 1st: After widespread early rain at first, a clearance to dry weather reached the southwest and spread eastwards, reaching the southeast by noon. Mainly dry for the afternoon and evening with just a few isolated spots of rain or drizzle. A few sunny spells in places also. Mild. Winds were light southerly, veering southwesterly and increasing for a while before backing southeasterly and becoming light.

Rainfall: <1 to 14mm, heaviest at Dublin Airport, <1mm at Belmullet
Temperature: max. 11°C to 16°C, min. 7°C to 11°C, no ground frost
Sunshine: nil to 4 hours, sunniest at Rosslare

Saturday 2nd: Patches of mist and fog cleared gradually during the morning. Most parts of the country were dry with spells of sunshine. The day became warm with light winds. Banks of sea-fog drifted onto parts of the east and south coasts during the day. Light to moderate southeasterly winds.

Rainfall: nil to trace
Temperature: max. 12°C to 18°C, min. 3°C to 10°C, ground temperatures down to -2°C at Kilkenny
Sunshine: 6 to 10 hours, sunniest at Cork Airport, 6 hours at Malin Head

Sunday 3rd: After a misty start it was sunny for a time in eastern parts of the country. Further west, thicker cloud brought outbreaks of rain, spreading eastwards during the day. Clearer, fresher weather followed. Light southeasterly winds veered south to southwesterly.

Rainfall: nil to 1mm, heaviest at Belmullet
Temperature: max. 10°C to 15°C, min. 3°C to 7°C, ground temperatures down to -3°C at Kilkenny and Mullingar
Sunshine: <1 to 6 hours, sunniest at Valentia

Monday 4th: Showery overnight in western areas, but mainly clear elsewhere with ground frost in places. The morning was fine with sunny spells and scattered showers. During the afternoon these showers became more frequent and heavier, with some of hail. Some sunshine also between the showers. The showers died out in most places by late evening except along western coasts. Southwesterly winds throughout the period, gusty at times.

Rainfall: trace to 6mm, heaviest at Belmullet, trace at Kilkenny
Temperature: max. 9°C to 12°C, min. 2°C to 6°C, ground temperatures down to -2°C at Kilkenny and Clones
Sunshine: 6 to 10 hours, sunniest at Kilkenny

Tuesday 5th: Showery in western areas overnight, mainly dry elsewhere. Showers became more widespread during the morning, affecting most parts. There were some sunny spells also. More persistent rain developed during the early afternoon and spread eastwards during the late afternoon and evening. Southwesterly winds increased as the day went on, becoming gusty by evening.

Rainfall: 1 to 23 mm, heaviest at Valentia, 1mm at Dublin Airport
Temperature: max. 9°C to 12°C, min. 4°C to 7°C, ground temperatures down to -3°C at Kilkenny
Sunshine: trace to 7 hours, sunniest at Malin Head, trace at Valentia

Wednesday 6th: There was a mixture of sunny spells and scattered showers in the morning. Heavy showers of rain and hail became more frequent in the afternoon as gusty southwesterly winds strengthened. It was cold and windy in the evening and night with scattered wintry showers, most frequent in the north and west. Winds were moderate to fresh southwesterly, increasing strong with gale and strong gale gusts.

Rainfall: 4 to 12 mm, heaviest at Belmullet, 4mm at Clones
Temperature: max. 8°C to 11°C, min. <1°C to 6°C, ground temperatures down to -1°C at Kilkenny
Sunshine: 4 to 9 hours, sunniest at Kilkenny, 4 hours at Connacht Airport

Thursday 7th: It was very cold and windy during the day with frequent wintry showers. Blustery showers of rain, hail and sleet at times were widespread with brief sunny intervals, mainly across Leinster during the morning. It was very windy and cold in the evening and night with frequent showers of rain and snow. Moderate northwest to westerly winds at first veered northwest to northerly, becoming strong to near gale with severe gale gusts.

Rainfall: 1 to 7 mm, heaviest at Connacht Airport, 1mm at Birr
Temperature: max. 7°C to 10°C, min. 0°C to 4°C, ground temperatures down to -3°C at Clones
Sunshine: 1 to 8 hours, sunniest at Shannon Airport, 1 hour at Rosslare

Friday 8th: Cold overnight with ground frost in places and some showers also, these mainly in the west. Sunny spells during the morning with some wintry showers. This weather continued through the afternoon before the showers died out during the evening and night and ground frost developed. Winds were strong and gusty, north to northwesterly in direction.

Rainfall: nil to 5 mm, heaviest at Connacht Airport
Temperature: max. 5°C to 9°C, min. -1°C to 4°C, ground temperatures below zero at all inland stations, down to -7°C at Kilkenny
Sunshine: 5 to 11 hours, sunniest at Rosslare, 5 hours at Malin Head

Saturday 9th: Cool overnight with some inland frost and patchy rain in the extreme north. This rain became more general in the north and northwest towards dawn, crossing the country by noon. Some sunny breaks. Cool. Well scattered, mainly light showers during the afternoon and evening. Light west or southwesterly winds, becoming moderate for a while in the afternoon.

Rainfall: nil to 3mm, heaviest at Malin Head
Temperature: max. 9°C to 12°C, min. -1°C to 6°C, ground temperatures below zero at all inland stations, down to -8°C at Kilkenny
Sunshine: 1 to 4 hours, sunniest at Cork Airport

Sunday 10th: Dry generally during the day with a few showers inland, rainfall amounts quite small. Clear spells in most areas with long spells of sunshine, especially along coastal areas. Showers died out by evening. Winds were west to southwesterly, light to moderate, but stronger along northern coasts.

Rainfall: nil to <1mm
Temperature: max. 13°C to 16°C, min. 4°C to 9°C, ground temperatures down to -2°C at Cork Airport
Sunshine: 1 to 10 hours, sunniest at Belmullet, 1 hour at Shannon Airport

Monday 11th: The day was mainly dry except for a few showers of light rain or drizzle. Some sunny spells in the east and southeast. Rain reached the northwest coast during the evening and spread inland, giving some moderate falls. Light to moderate southwesterly winds, increasing during the evening.

Rainfall: nil to 6mm, heaviest at Malin Head
Temperature: max. 13°C to 16°C, min. 5°C to 10°C, ground temperatures down to -2°C at Kilkenny
Sunshine: <1 to 5 hours, sunniest at Rosslare, <1 hour at Belmullet

Tuesday 12th: Scattered showers, mainly in the northern half of the country, largely dying out by the afternoon. Sunny spells throughout. Outbreaks of rain or drizzle in southern areas during the evening. Winds were light southwesterly, veering westerly and increasing later, before easing again by evening.

Rainfall: trace to 5mm, heaviest at Cork Airport, trace at Kilkenny and Clones
Temperature: max. 10°C to 14°C, min. 3°C to 7°C, ground temperatures down to -2°C at Kilkenny
Sunshine: 1 to 8 hours, sunniest at Malin Head, 1 hour at Shannon Airport

Wednesday 13th: A band of showery rain in the west moved gradually eastwards, giving some heavy falls in places. Sunny spells in eastern areas during the morning. The rain finally cleared the east coast by the end of the day. More showers developed in the west during the evening. Winds were southwesterly or variable, moderate with occasional gusts at times.

Rainfall: <1 to 15mm, heaviest at Malin Head, <1mm at Dublin Airport
Temperature: max. 7°C to 13°C, min. 2°C to 5°C, ground temperatures down to -5°C at Kilkenny
Sunshine: trace to 8 hours, sunniest at Rosslare, trace at Malin Head

Thursday 14th: Showers of rain or hail became widespread during the day with some heavy thundery downpours. Sunny except in eastern areas. Cold. Winds were northeasterly, backing northerly, fresh to strong with gale gusts.

Rainfall: trace to 9mm, heaviest at Valentia, trace at Malin Head
Temperature: max. 7°C to 11°C, min. 1°C to 5°C, ground temperatures down to -4°C at Kilkenny
Sunshine: nil to 7 hours, sunniest at Valentia, nil in the east

Friday 15th: It was cool and breezy during the day with sunny spells and scattered showers. Some longer outbreaks of rain occurred near the east coast in the morning. Frost set in overnight. Winds were northerly, moderate to near gale force with occasional gale gusts.

Rainfall: nil to 2mm, heaviest at Connacht Airport
Temperature: max. 8°C to 11°C, min. 2°C to 7°C, ground temperatures down to -1°C at Kilkenny and Connacht Airport
Sunshine: 4 to 13 hours, sunniest at Malin Head

Saturday 16th: Showers in the west overnight with ground frost in places also. A dry morning with some sunny spells. It continued fine with some sunshine during the afternoon and evening. Rain affected the west coast by late evening. Winds were light, north to northwesterly in direction.

Rainfall: nil generally, <2mm at Valentia

Temperature: max. 7°C to 11°C, min. -1°C to 4°C, ground temperatures below zero at all inland stations, down to -9°C at Birr

Sunshine: 1 to 8 hours, sunniest at Rosslare

Sunday 17th: Rain in the west spread eastwards during the night, leading to a very wet morning everywhere with strong and gusty winds. A clearance reached the west by mid-afternoon and spread slowly eastwards during the late afternoon. Winds were south to southeasterly, increasing strong and gusty.

Rainfall: 6 to 32mm, heaviest at Rosslare, 6mm at Casement Aerodrome

Temperature: max. 8°C to 12°C, min. 3°C to 7°C ground temperatures down to -2°C at Connacht Airport

Sunshine: nil to 6 hours, sunniest at Belmullet, nil in the east

Monday 18th: Rain in parts of the east and northeast during the morning, persisting in the northeast into the afternoon with thundery bursts. Scattered heavy showers during the morning, spread from the southwest to reach all parts by late afternoon, before dying out during the evening. Sunny spells in most parts. Winds were light and variable.

Rainfall: nil to 13mm, heaviest at Malin Head, nil at Connacht Airport

Temperature: max. 8°C to 12°C, min. <1°C to 6°C, ground temperatures down to -4°C at Birr

Sunshine: nil to 12 hours, sunniest at Belmullet, nil at Clones and Malin Head

Tuesday 19th: Clear spells everywhere except in eastern and southeastern areas, where there were outbreaks of rain at times. This rain gradually moved into southern and southwestern parts and moved slowly northwards during the morning. Some heavy falls of rain in the southwest during the afternoon and evening. Long sunny spells elsewhere during the day. Light and variable winds.

Rainfall: nil to 5mm, heaviest at Rosslare

Temperature: max. 9°C to 14°C, min. -2°C to 4°C, ground temperatures below zero at all inland stations, down to -7°C at Birr

Sunshine: 2 to 13 hours, sunniest at Malin Head, 2 hours at Cork Airport

Wednesday 20th: Some rain and drizzle in eastern and northern areas during the early morning, which cleared by early afternoon. Sunny spells in places throughout the day, except near eastern coasts. A dry night with ground frost in places. Winds were light, east to northeasterly in direction.

Rainfall: nil to <1mm, heaviest at Dublin Airport

Temperature: max. 8°C to 14°C, min. 3°C to 7°C, ground temperatures down to -4°C at Kilkenny

Sunshine: nil to 12 hours, sunniest at Rosslare, nil at Dublin Airport

Thursday 21st: A dry, mild and sunny day generally with just the odd spot of light rain in Ulster. Afternoon temperatures around normal in most places but cooler on exposed northern coasts. Light, variable or easterly winds overnight became light to moderate southeasterly during the day.

Rainfall: nil or trace

Temperature: max. 9°C to 17°C, min. 0°C to 7°C, ground temperatures down to -7°C at Birr

Sunshine: 3 to 12 hours, sunniest at Dublin Airport, 3 hours at Malin Head

Friday 22nd: Early rain in the southwest spread slowly northwards giving some heavy falls, particularly in the south. Remaining dry in the north of the country, which also received most of the sunshine. Winds were light to moderate, generally easterly in direction.

Rainfall: nil to 18mm, heaviest at Cork Airport, nil at Malin Head and Clones

Temperature: max. 9°C to 15°C, min. 2°C to 9°C, ground temperatures below zero at Kilkenny

Sunshine: nil to 9 hours, sunniest at Malin Head, nil at Cork Airport

Saturday 23rd: A dull, overcast day in most parts apart from the extreme north of the country, where there were sunny spells. A few sunny spells also in the south. Although some areas remained dry, there were widespread showers at times throughout the day with the southeast experiencing the heaviest falls. Light to moderate easterly winds.

Rainfall: nil to 5mm, heaviest at Rosslare

Temperature: max. 10°C to 16°C, min. 6°C to 10°C, no ground frost

Sunshine: nil to 7 hours, sunniest at Malin Head, 4 hours at Valentia

Sunday 24th: A few spots of drizzle in the east, but otherwise dry overnight and through the morning. Well-scattered showers during the afternoon and evening. Long spells of sunshine, especially in the east. Winds were light east or northeasterly throughout.

Rainfall: nil to trace generally, 1mm at Valentia

Temperature: max. 11°C to 16°C, min. 3°C to 9°C, ground temperatures down to -2°C at Birr

Sunshine: 4 to 10 hours, sunniest at Kilkenny, 4 hours at Cork Airport

Monday 25th: A dry start to the day, with just a few isolated showers in the west. Long sunny spells in most parts. Showers reached the west coast by early afternoon and spread northeastwards to give some heavier falls, particularly in the southwest. Winds were light and variable in direction.

Rainfall: nil to 7mm, heaviest at Valentia

Temperature: max. 12°C to 18°C, min. 3°C to 10°C, ground temperatures down to -3°C at Kilkenny

Sunshine: 1 to 11 hours, sunniest at Malin Head, 1 hour at Valentia

Tuesday 26th: Cloudy, misty conditions at first, with outbreaks of rain across north Leinster, Connacht and Ulster. This was followed by a clearance from the south to sunnier conditions. Showery rain arrived in the southwest before noon and spread northwards to all areas during the afternoon and evening. The showers were heavy and prolonged with some thundery downpours. Winds were southeast to southerly, light to moderate.

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

Temperature: max. 13°C to 16°C, min. 4°C to 9°C, ground temperatures down to -1°C at Birr and Kilkenny

Sunshine: 3 to 10 hours, sunniest at Rosslare, 3 hours at Connacht Airport

Wednesday 27th: The morning was a mixture of sunny spells and heavy scattered showers. The showers became more widespread during the afternoon. Rain developed in the southwest by late afternoon and spread northeastwards through the evening and night, to give a wet night over most of the country, the exception being the north, which remained dry. Winds were light to moderate, variable in direction.

Rainfall: trace to 19mm, heaviest at Cork Airport, trace at Malin Head

Temperature: max. 12°C to 15°C, min. 2°C to 7°C, ground temperatures down to -3°C at Kilkenny

Sunshine: 4 to 11 hours, sunniest at Malin Head, 4 hours at Valentia

Thursday 28th: Heavy rain through the night with strong and gusty south to southeasterly winds. The rain cleared the southwest coast early in the day; this clearance spread northeastwards during the morning, followed by scattered showers. Sunny spells developed during the late morning and afternoon with a few scattered showers also, mainly in western areas. Winds were south to southeasterly, strong and gusty, decreasing by evening.

Rainfall: <1 to 15mm, heaviest at Belmullet, <1mm at Dublin Airport

Temperature: max. 13°C to 17°C, min. 6°C to 10°C, ground temperatures below zero at Kilkenny

Sunshine: 4 to 10 hours, sunniest at Valentia, 4 hours at Malin Head

Friday 29th: Dry overnight with fog patches and some ground frost. A dry start to the day in all parts with some sunshine, particularly in the northern half of the country. The afternoon and evening remained mostly dry, however, rain reached the south coast by dark and this rain moved slowly northwards. Winds were light to moderate, south to southwesterly in direction.

Rainfall: nil to 4mm, heaviest at Rosslare

Temperature: max. 13°C to 18°C, min. 3°C to 9°C, ground temperatures down to -1°C at Kilkenny

Sunshine: 5 to 12 hours, sunniest at Connacht Airport, 5 hours at Valentia

Saturday 30th: Heavy rain over the southern half of the country moved slowly northwards to give some heavy falls, particularly in the southeast. This rain cleared the country by late afternoon. Northern areas remained dry. An overcast day generally with just a few sunny spells, mainly in the east and south. A little cooler than of late. Winds were light to moderate, variable in direction.

Rainfall: nil to 13mm, heaviest at Rosslare, nil at Malin Head

Temperature: max. 11°C to 16°C, min. 6°C to 9°C, no ground frost

Sunshine: nil to 3 hours, sunniest at Rosslare

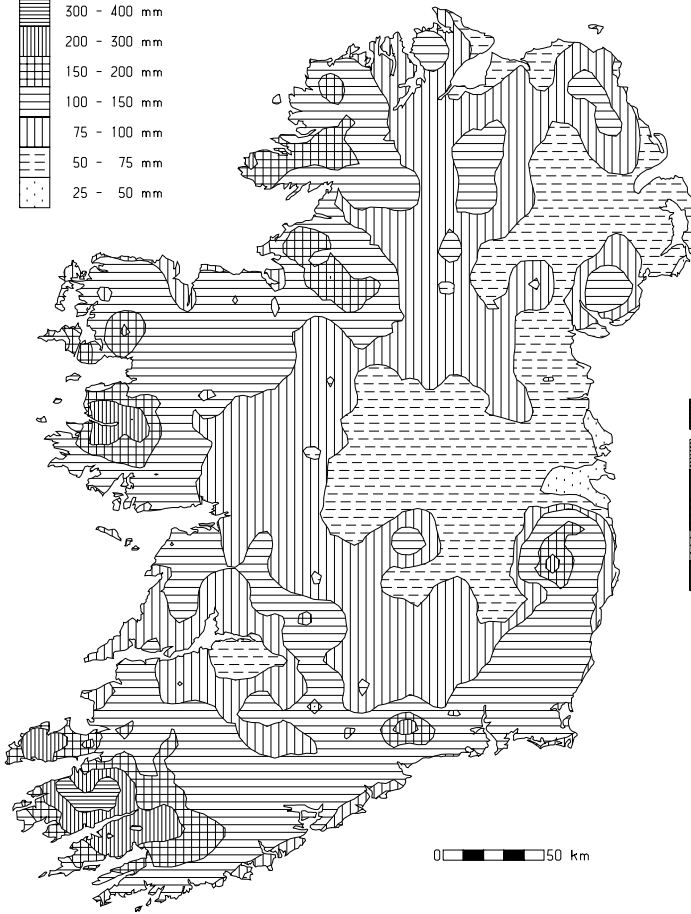
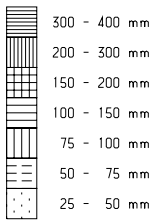
Wetter than normal except in east

Rainfall totals for April were above normal across the country except in the Dublin area. More than twice the normal rainfall for the month was recorded in parts of the northwest and southeast; it was the wettest April for 6 or 7 years at many stations and the wettest since 1994 at Malin Head. There was a wide range in totals across the country, ranging from 40mm at Dublin (Merrion Square) to 194mm at Maam Valley, Co. Galway, with percentage of normal values between 81% at Merrion Square and 229% at Waterford (Tycor).

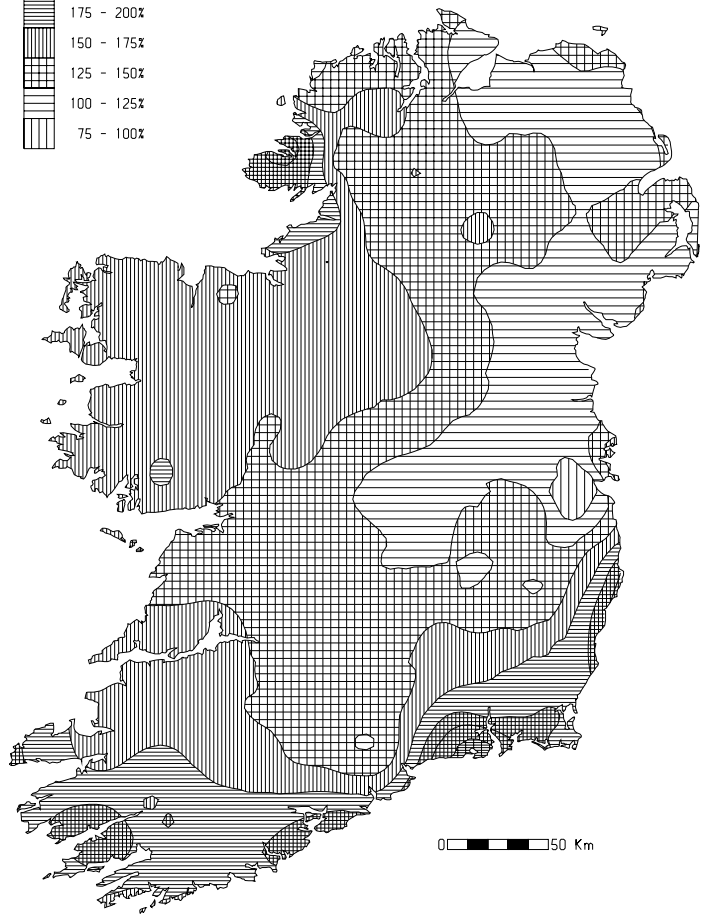
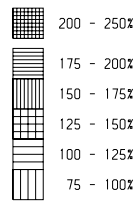
Rain fell on most days during the month, without any dry spells. There was a total of around 20 raindays (*days with 0.2mm or more rainfall*) recorded at most stations, with up to 26 raindays measured at Ardee (Boharnamoe), Co. Louth. The period 16th/17th was a wet one at many stations, but the highest daily falls were recorded on the 27th/28th in the southeast, south and west, associated with a deep depression close to the northwest of the country (see page 2). The highest daily value of the month, 32.4mm, was recorded at Clonroche (Knoxtown), Co. Wexford, on the 27th; this was the highest April daily fall in the area since 1966.

County/ Station	Total Amount (mm)	% of 1961-90 average	Most in a day / date		Number of Raindays (>0.2mm)	Wetdays (>1mm)
CO. CLARE						
SHANNON AIRPORT	91.3	163	14.9	5	22	17
CARRON	110.0	128	12.2	6	25	17
CO. CORK						
FERMOY (MOORE PARK)	82.8	140	20.8	27	16	12
CORK AIRPORT	134.2	192	24.4	27	22	17
SHERKIN ISLAND	114.4	176	23.3	16	19	14
BALLINCURRIG (PEAFIELD)	133.1		25.5	27	20	14
CO. DONEGAL						
MALIN HEAD	78.8	136	15.3	13	17	13
BALLYSHANNON (CATHLEEN'S FALL)	114.1	200	14.5	4	20	17
GLENTIES	169.6	212	22.9	27	22	19
CO. DUBLIN						
DUBLIN (PHOENIX PARK)	45.3	85	8.4	5	23	14
DUBLIN AIRPORT	57.0					
CASEMENT AERODROME	44.0	86	11.3	5	17	13
DUBLIN (MERRION SQUARE)	39.7	81	7.4	5	20	14
CO. GALWAY						
GALWAY (UNIV. COLL.)	102.7	153	13.5	5	24	19
MAAM VALLEY	193.6		32.0	27	23	20
CONNEMARA NATIONAL PARK	137.0	165	22.3	16	22	18
BALLYGAR	97.9	160	12.8	27	24	19
CO. KERRY						
VALENTIA OBSERVATORY	152.8	198	28.3	27	24	17
ARDFERT (LISCAHANE)	103.0		14.9	16	24	18
CO. KILKENNY						
KILKENNY	82.5	159	14.5	17	17	14
CO. LEITRIM						
BALLINAMORE	116.8	174	18.4	16	20	18
CO. LIMERICK						
MOUNT RUSSELL	129.6		22.4	16	23	17
CO. LOUTH						
ARDEE (BOHARNAMOE)	59.4	108	8.0	16	26	12
CO. MAYO						
BELMULLET	96.1	169	15.9	27	20	14
STRAIDE	112.3	175	15.9	13	22	19
CONNACHT AIRPORT	109.1		19.4	27	21	17
CO. MEATH						
WARRENTOWN	66.0	114	12.3	5	22	13
CO. MONAGHAN						
CLONES	72.3	129	13.2	17	17	14
CO. OFFALY						
BIRR	73.9	139	12.9	17	21	12
DERRYGREENAGH	66.3	116	14.6	17	20	15
CO. SLIGO						
ARDTARMON	83.0		14.6	13	20	14
CO. TIPPERARY						
FETHARD (PARSONSHILL)	84.8		18.7	17	20	16
CO. WATERFORD						
WATERFORD (TYCOR)	139.4	229	22.5	27	22	17
DUNGARVAN (CARRIGLEA)	148.8		31.1	27	18	15
CO. WESTMEATH						
MULLINGAR II	74.5	126	12.3	17	21	16
CO. WEXFORD						
JOHNSTOWN CASTLE	130.9	205	25.8	17	19	16
ROSSLARE	107.8	193	26.6	17	17	14
JOHN F. KENNEDY PARK	121.9	190	24.8	17	17	15
CLONROCHE (KNOXTOWN)	140.3		32.4	27	21	15

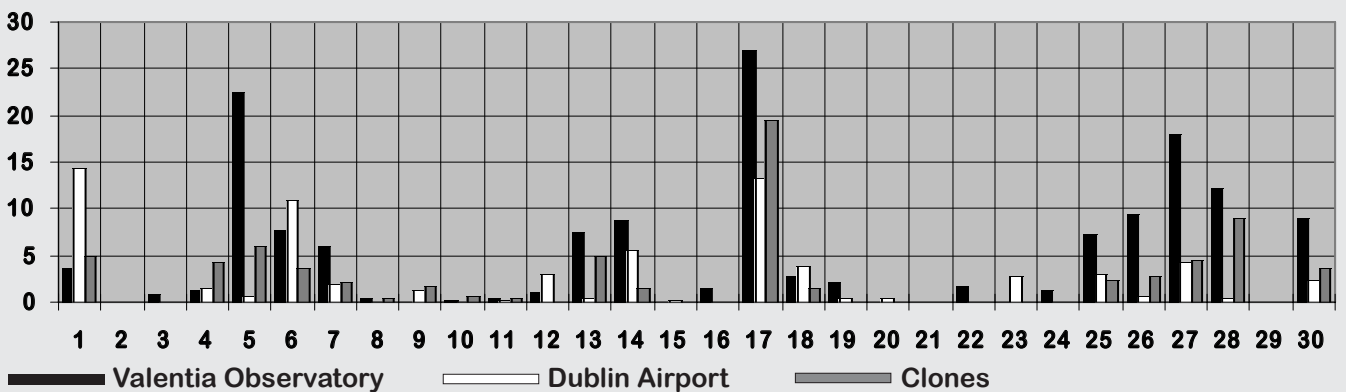
Total rainfall (mm)



Percentage of normal rainfall



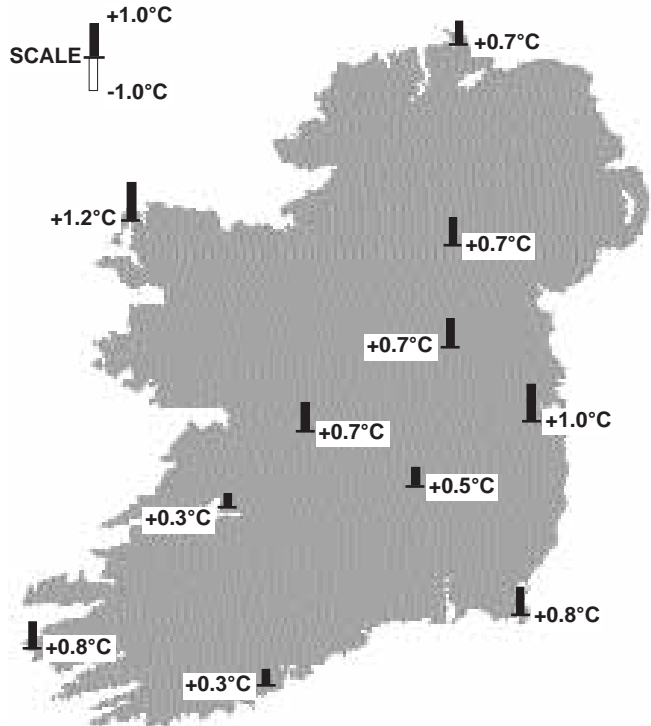
Daily 0-24h rainfall values (mm)



Becoming mild after cool start

Mean air temperatures for April were between half a degree and one degree above normal in most places, despite a spell of relatively cold weather early in the month. They ranged from 7.5°C at Connacht Airport to 9.8°C at Valentia Observatory.

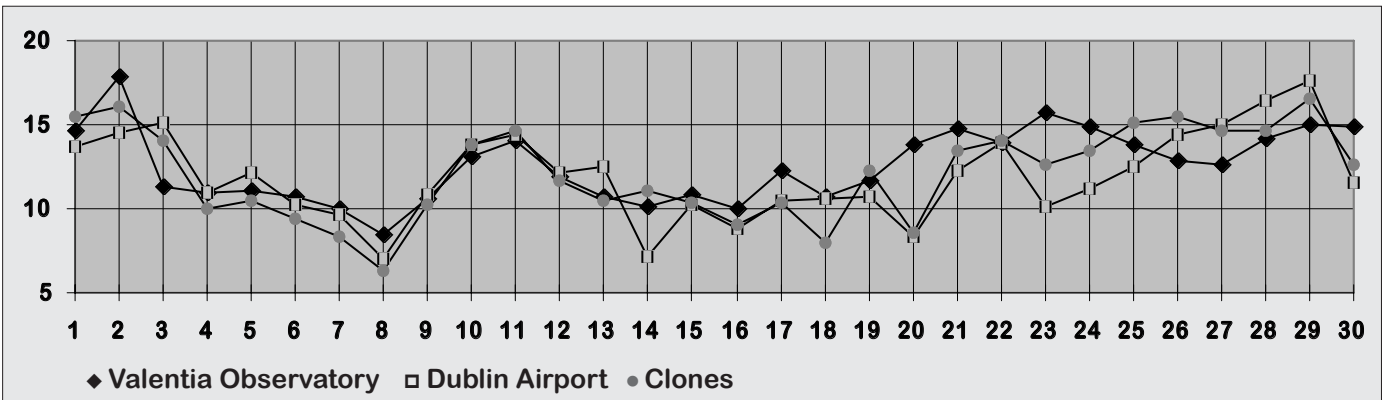
The month began with a period of below normal temperatures between the 3rd and 8th, with daytime values of around 10°C and widespread ground frost at night. The lowest temperature values were measured later in the month, however; the lowest air temperature, -2.4°C, was recorded at both Ballincurrig (Peafield), Co. Cork, on the 9th and at Ballinamore, Co. Leitrim, on the 19th, while the lowest grass minimum temperature, -8.7°C, was recorded at Birr on the 16th. Most inland stations measured at least 10 ground frosts during the month, with up to 20 ground frosts measured at Derrygreenagh, Co. Offaly. Daytime temperatures were not much higher than the average at any time during the month. Unlike the previous month, at no station did the temperature rise above 20°C on any day, while the month's maximum at some stations in



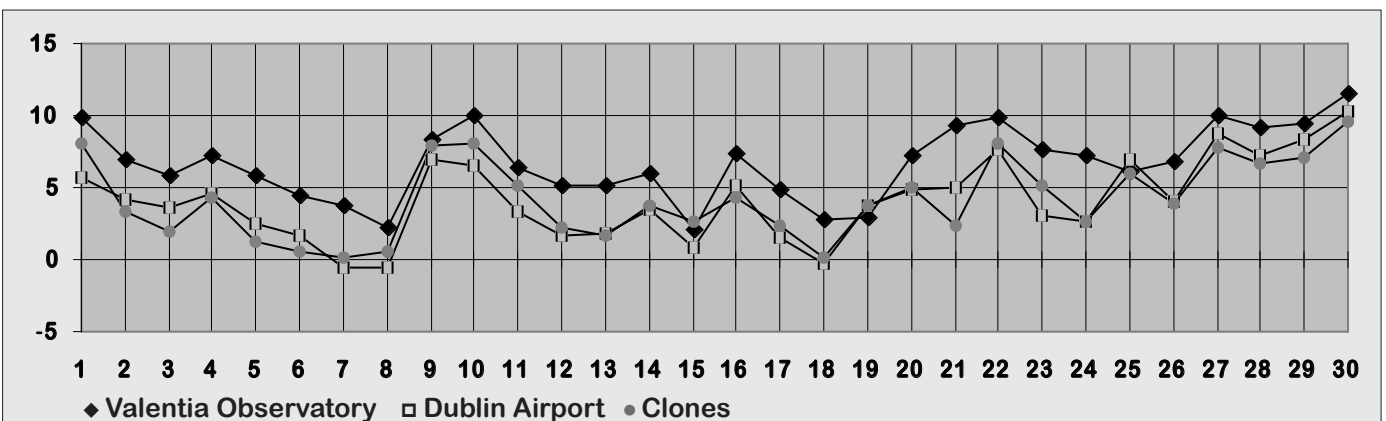
Mean Temperature
(difference from 1961-90 normals)

the south and southeast was only around 15°C. The month's highest temperature, 19.4°C, was measured at Ardfert (Liscahane), Co. Kerry, on the 2nd.

Daily 0-24h maximum temperatures (°C)



Daily 0-24h minimum temperatures (°C)



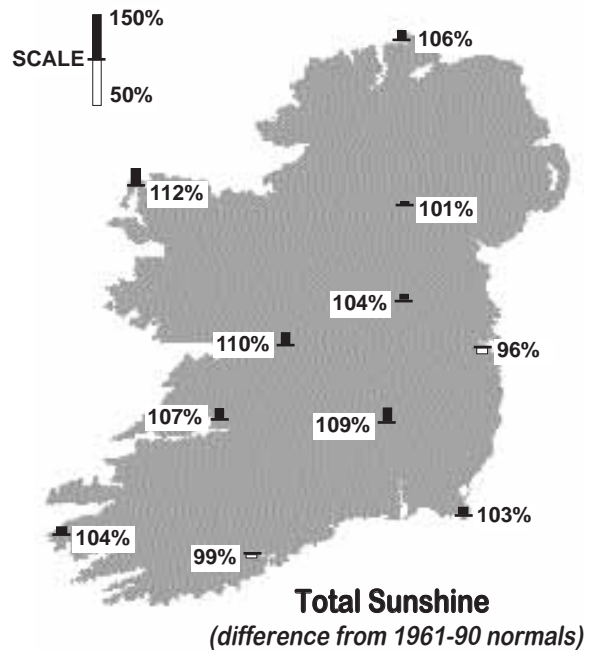
County/ Station	°C											
	Mean max.	Mean min.	Mean/ deviation from 1961-90 average		Highest max./date		Lowest min./date		Lowest grass min./date		Days with air frost ground frost	
CO. CLARE												
SHANNON AIRPORT	13.0	5.3	9.2	0.3	17.5	30	0.0	19	-3.1	9	0	6
CARRON	12.2	4.6	8.4	0.7	16.7	2	0.0	19	-5.2	9	0	13
CO. CORK												
FERMOY (MOORE PARK)	12.9	4.1	8.5	0.5	17.0	29	-0.7	21	-4.2	9	2	14
CORK AIRPORT	11.6	4.8	8.2	0.3	14.7	29	0.5	8	-3.4	9	0	9
SHERKIN ISLAND	12.2	6.8	9.5	0.7	14.7	29	0.8	9	-3.2	9	0	4
BALLINCURRIG (PEAFIELD)	12.7	3.4	8.1		16.5	2 29	-2.4	9	-4.8	9	3	8
CO. DONEGAL												
MALIN HEAD	11.0	6.0	8.5	0.7	17.2	2	1.0	8	1.0	8	0	0
BALLYSHANNON (CATHLEEN'S FALL)	12.1	5.5	8.8	0.9	17.5	2	1.3	7			0	
GLENTIES	12.3	4.6	8.5	0.5	16.1	24	-0.2	19	-1.1	20	1	4
CO. DUBLIN												
DUBLIN (PHOENIX PARK)	12.7	4.5	8.6	0.7	17.6	29	-0.3	19	-4.0	16	3	10
DUBLIN AIRPORT	12.1	4.6	8.4		17.6	29	-0.6	9	-2.8	9	2	9
CASEMENT AERODROME	12.7	4.6	8.7	1.0	17.1	28	-1.1	9	-2.7	9	3	8
DUBLIN (MERRION SQUARE)	12.1	6.7	9.4	0.5	17.4	28	2.0	8			0	
CO. GALWAY												
GALWAY (UNIV. COLL.)	13.1	5.5	9.3	0.6	18.2	2	-1.1	19	-3.9	19	1	8
MAAM VALLEY	12.5	5.9	9.2		17.1	2	1.1	19	-3.2	19	0	5
CONNEMARA NATIONAL PARK	12.8	4.9	8.9		16.9	24 25	0.2	8			0	
BALLYGAR	12.9	4.4	8.7		17.0	2 25	-1.0	19	-3.4	9	3	8
CO. KERRY												
VALENTIA OBSERVATORY	12.7	6.8	9.8	0.8	17.9	2	2.1	16	-2.1	9 16	0	4
ARDFERT (LISCAHANE)	14.1	4.9	9.5	1.1	19.4	2	-1.0	16	-5.1	16	1	12
CO. KILKENNY												
KILKENNY	13.1	4.1	8.6	0.5	17.1	29	-0.8	9	-8.0	9	1	19
CO. LEITRIM												
BALLINAMORE	12.1	4.1	8.1	0.4	16.6	2	-2.4	19	-4.4	19	1	10
CO. LIMERICK												
MOUNT RUSSELL	12.3	4.3	8.3		16.7	2	-1.2	8	-4.2	9	2	8
CO. LOUTH												
ARDEE (BOHARNAMOE)	12.4	4.8	8.6	1.1	17.2	30	-0.4	19	-0.6	7	1	4
CO. MAYO												
BELMULLET	12.6	6.6	9.6	1.2	18.6	25	2.5	9	-1.5	9	0	2
STRAIDE	12.6	4.6	8.6	0.5	17.1	2	-1.0	19	-6.4	19	2	14
CONNACHT AIRPORT	11.1	3.9	7.5		16.1	25	-0.6	8	-5.2	19	1	7
CO. MEATH												
WARRENSTOWN	12.2	4.7	8.5	0.8	17.5	29	-0.6	19	-4.5	19	1	4
CO. MONAGHAN												
CLONES	12.1	4.4	8.3	0.7	16.6	29	0.2	8 19	-4.1	9	0	10
CO. OFFALY												
BIRR	12.8	4.6	8.7	0.7	17.8	25	-1.4	16	-8.7	16	2	11
DERRYGREENAGH	12.7	3.8	8.3	0.9	17.6	2	-1.1	19	-6.4	16	3	20
CO. SLIGO												
ARDTARMON	12.9	5.5	9.2		17.6	25	1.2	9	-0.4	8	0	1
CO. TIPPERARY												
FETHARD (PARSONSHILL)	12.1	3.8	8.0		17.0	29	-0.6	9	-2.9	9	3	6
CO. WATERFORD												
WATERFORD (TYCOR)	13.3	5.1	9.2	0.8	16.4	24	1.0	8			0	
DUNGARVAN (CARRIGLEA)	13.4	4.8	9.1	0.6	16.2	29	0.4	14	-2.1	9	0	5
CO. WESTMEATH												
MULLINGAR II	12.3	4.3	8.3	0.7	17.0	2	-1.6	19	-5.3	19	2	12
CO. WEXFORD												
JOHNSTOWN CASTLE	12.1	5.5	8.8	0.9	15.0	30	1.6	8 9	-0.7	9	0	1
ROSSLARE	11.7	6.6	9.2	0.8	15.5	10	0.0	9	-3.1	9	0	1
JOHN F. KENNEDY PARK	12.4	4.8	8.6	0.4	15.5	2	0.5	16	-3.8	16	0	10
CLONROCHE (KNOXTOWN)	11.9	3.9	7.9		15.4	29	0.1	19	-4.0	9	0	13

County/ Station	Daily mean (hours/day)	% of average	% of possible	Most in a day/date	
CO. CLARE					
SHANNON AIRPORT	5.28	107	38	11.5	21
CO. CORK					
FERMOY (MOORE PARK)	4.88	102	35	9.7	2
CORK AIRPORT	5.20	100	37	10.9	20
SHERKIN ISLAND	5.96	101	43	11.1	20
BALLINCURRIG (PEAFIELD)	5.66		34	11.7	21
CO. DONEGAL					
MALIN HEAD	5.38	106	38	13.3	19
BALLYSHANNON (CATHLEEN'S FALL)	5.17	109	37	11.9	25 29
CO. DUBLIN					
DUBLIN AIRPORT	4.53	87	32	11.6	21
CASEMENT AERODROME	4.71	96	34	11.2	21
CO. GALWAY					
GALWAY (UNIV. COLL.)	5.67	114	41	11.8	29
CO. KERRY					
VALENTIA OBSERVATORY	5.20	104	38	11.3	20
ARDFERT (LISCAHANE)	6.16		42	12.3	21
CO. KILKENNY					
KILKENNY	5.27	109	38	10.4	8
CO. LEITRIM					
BALLINAMORE	4.60	101	33	11.3	25
CO. MAYO					
BELMULLET	5.90	112	42	12.7	19
STRAIDE	4.97			10.8	19
CONNACHT AIRPORT	4.82		34	11.9	29
CO. MONAGHAN					
CLONES	4.54	101	32	11.3	19
CO. OFFALY					
BIRR	4.93	106	35	10.5	20
CO. WATERFORD					
DUNGARVAN (CARRIGLEA)	5.46	108	42	10.7	20
CO. WESTMEATH					
MULLINGAR II	5.04	104	36	11.1	19
CO. WEXFORD					
JOHNSTOWN CASTLE	4.69	87	34	10.2	8
ROSSLARE	5.91	103	42	12.0	20
JOHN F. KENNEDY PARK	5.14	104	37	10.5	20
CLONROCHE (KNOXTOWN)	5.48		34	10.1	8

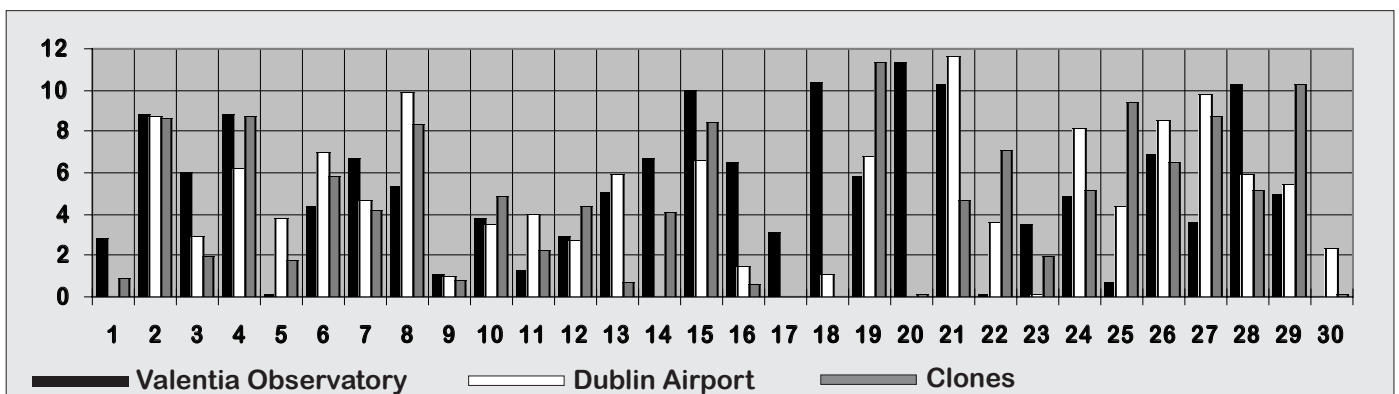
Sunnier than normal in most places

Sunshine totals were near or above normal generally, but it was a relatively sunny month in western areas. Totals ranged from 136 hours at Dublin Airport to 185 hours at Ardfert (Liscahane), Co. Kerry, with percentage of normal values between 87% of normal at Dublin Airport and 114% at Galway (Univ. Coll.).

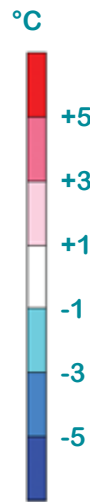
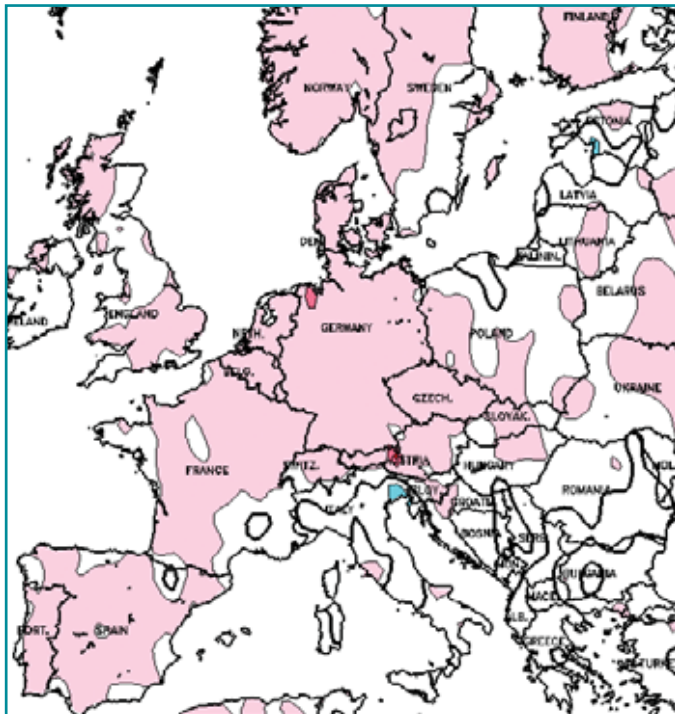
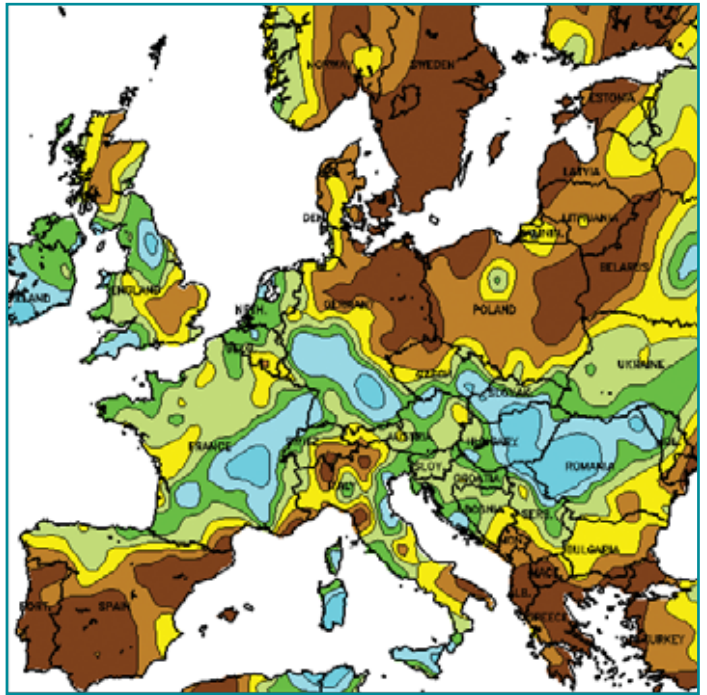
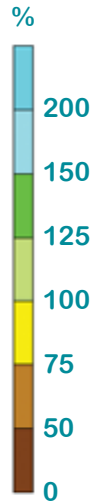
Sunshine was distributed evenly throughout the month, but the majority of stations measured their highest daily sunshine values in the period 19th to 21st, with the highest daily value, 13.3 hours, recorded at Malin Head on the 19th. This was the highest April daily value at the station since 1999. Global solar radiation totals were also close to normal at all stations, ranging from 95% of normal at Clones to 108% at Belmullet.



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

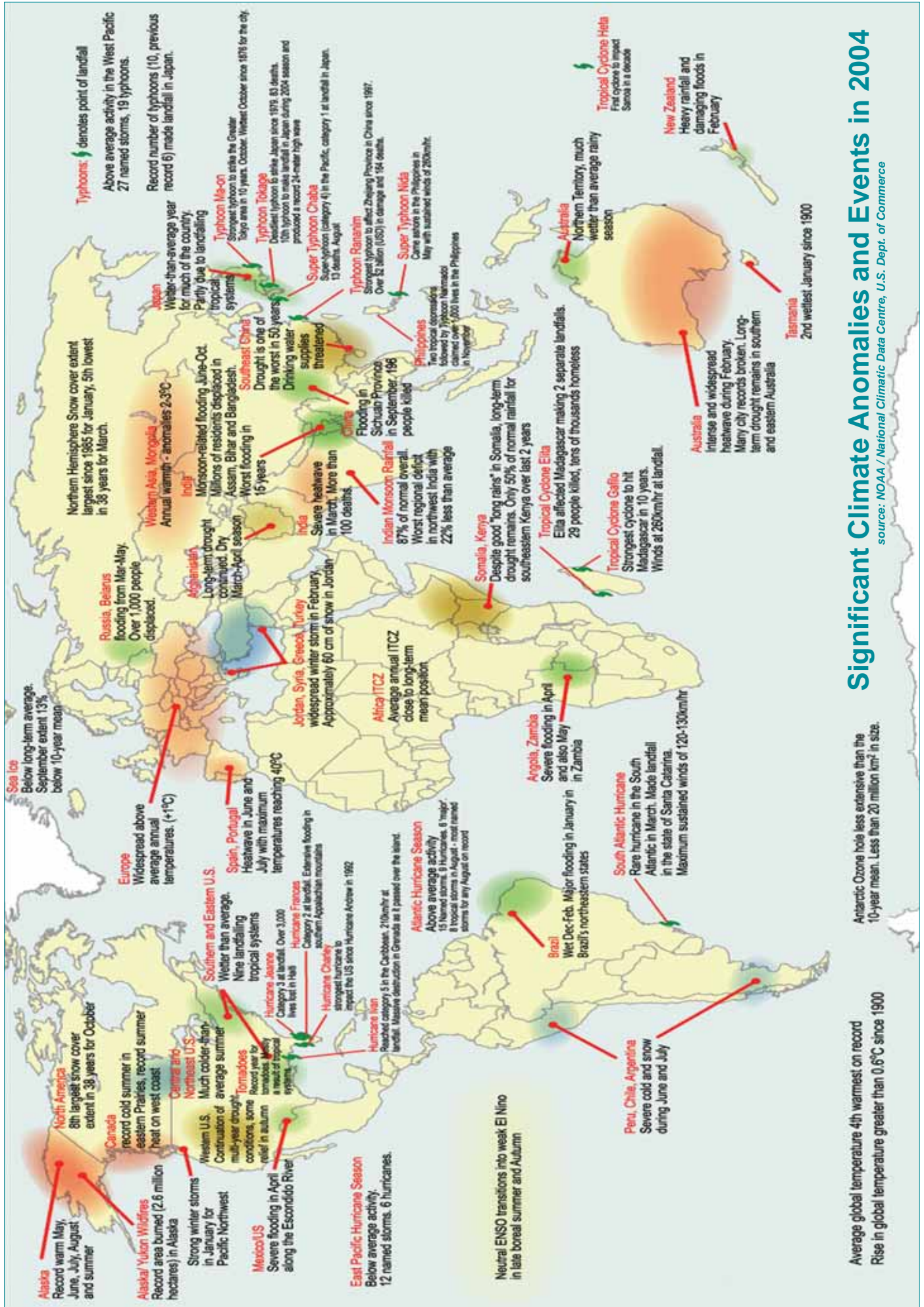
Heavy rainfall in the northeastern US produced flooding in parts of New York, New Jersey and Pennsylvania. Severe flooding along the Delaware River forced the evacuation of 6000 residents in New Jersey and over 5700 in Pennsylvania during the weekend of the 2nd/3rd. Around 3200 homes in New Jersey were damaged.

In Romania, flooding in the northern and western parts of the country damaged thousands of homes and submerged 30,000 hectares of farmland. More than 140 towns were affected by the flooding, which prompted government officials to issue a regional state of emergency.

Across Zanzibar Island off the coast of Tanzania, heavy rains associated with showers and thunderstorms during the period 17th/19th produced severe flooding, described as the worst in 40 years. At least 150 families lost their homes due to the flooding.

Drought across Thailand is reportedly the worst in seven years. Two million hectares of farmland have been affected, causing 180 million euro in economic losses. More than 9 million people in 71 of Thailand's 76 provinces have been affected by water shortages. Government-sponsored cloud seeding operations were employed in an attempt to mitigate the drought conditions.

Rainfall deficiencies since January 2005 enhanced drought conditions across much of Western Australia and New South Wales. The drought was exacerbated by hot weather; averaged across the country, it was the warmest April on record, with mean monthly air temperatures over five degrees higher than normal in places. There were also numerous daily maximum temperature records set across the country.



Significant Climate Anomalies and Events in 2004

source: NOAA / National Climatic Data Centre, U.S. Dept. of Commerce

Average global temperature 4th warmest on record
Rise in global temperature greater than 0.6°C since 1900