

Monthly Weather Bulletin

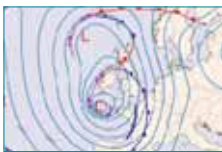
No. 236

DECEMBER 2005



INSIDE

Over 50mm at Valentia
on 2nd- page 3



Wind & Elements	4
Marine & Pressure	5
Agmet /Lab.....	6
Diary	8
Rainfall	10
Temperature ...	12
Sunshine	14
World Weather..	15
The weather of 2005.....	16

Warmer, sunnier
than normal



Produced by Met Éireann,
Glasnevin Hill, Dublin 9.
Annual subscription €80



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 each January issue



Although much of the month was relatively dry, there were spells of wet weather both early and late in the month. Heavy rainfall in the south of the country on the 31st was accompanied by strong westerly winds.
(picture: Irish Examiner)

DRY, MILD AND MOSTLY SUNNY

Summary: There were spells of unsettled weather during the early part of the month and again during the final week, but much of December was relatively dry with light winds, as a large area of high pressure moved very slowly over and to the south of Ireland. Rainfall totals for the month were below normal almost everywhere and it was a particularly dry month in southern counties, where just over half of the December normal rainfall was measured. There were between 7 and 12 wetdays (days with 1mm or more rainfall) during the month at stations

in the east and south compared with the normal range for December here of 12 to 15; between 17 and 21 wetdays were measured at western and northern stations. Most of the month was mild, especially during the spell of anticyclonic weather around the middle of the month, when a southerly airstream covered the country. The same period brought some frost when skies were clear, however, while a short spell of much colder weather developed just after Christmas, with falls of sleet or snow in places. A total of between 7 and 12 air frosts were measured at

most inland stations, close to normal for December. It was a sunny month in most places, especially in the south, southeast and northwest, where sunshine totals were more than 25% higher than normal.

1st to 9th: Areas of low pressure close to Ireland brought spells of rain or showers, heaviest on the 2nd and 7th. Valentia Observatory measured 52mm of rainfall on the 2nd (see page 3), over a third of its monthly total. Winds were between southerly and westerly in direction for most of this period, while temperatures were above normal at first but subsequently fell, giving widespread ground frost between the 6th and 8th. The beginning of the month was cloudy, but clearer conditions developed between the 3rd and 6th.

10th to 26th: An anticyclone drifted slowly westwards across Ireland between the 11th and 14th, before moving back eastwards to the south of the country over the following days. Rainfall amounts during this period were small, although weak frontal systems gave some falls of rain between the 16th and 21st, mainly in western and northern areas. Daytime temperatures were well above normal throughout most of this period, but clear skies allowed widespread frost to develop on some days, especially on the 12th and 13th. Winds were generally light and variable in direction, but stronger winds with gale gusts developed near northern and western coasts on the 16th and 21st.

27th to 31st: A cold east to southeasterly airflow of Siberian origin brought a sharp



Severe winter weather at the end of the month affected many parts of Europe, with snow and thick fog enveloping most of Italy, where Florence recorded 25cm of snow, the heaviest fall recorded there for two decades. Temperatures in northern Italy dropped as low as -17°C, while the French town of Meuthe, near the Swiss border, measured -26°C on the 30th. Snowstorms left 110,000 homes without power in northern France. Blizzards, ice and high winds prompted a nationwide weather warning in the Netherlands, while some main roads were shut to traffic in eastern parts of the Czech Republic and in Slovakia. In Poland, a total of 23 people froze to death during the severe cold spell; heavy snowfall blocked roads in the Katowice and Bielsko-Biala regions in the south of the country.



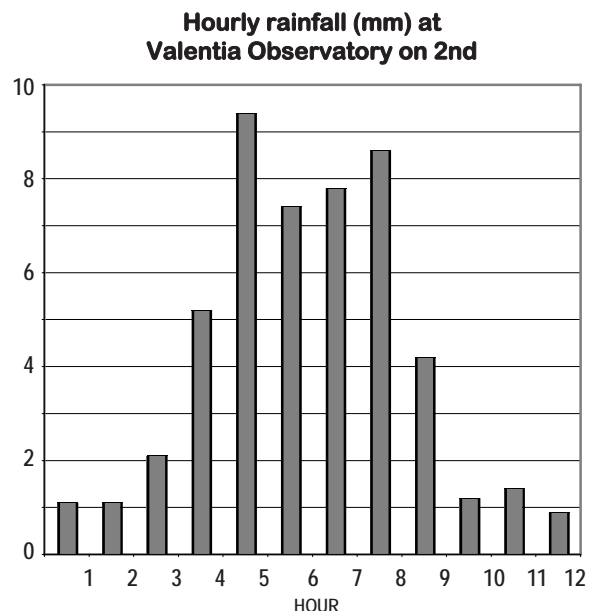
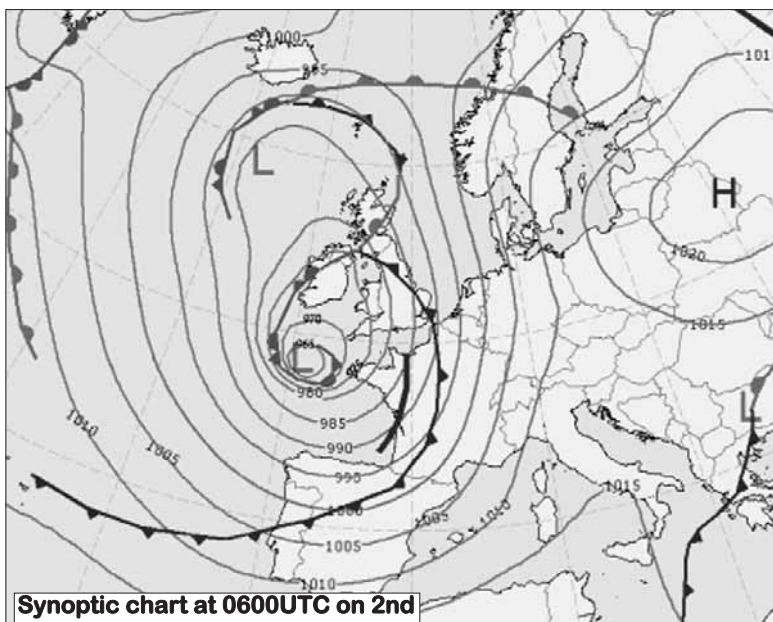
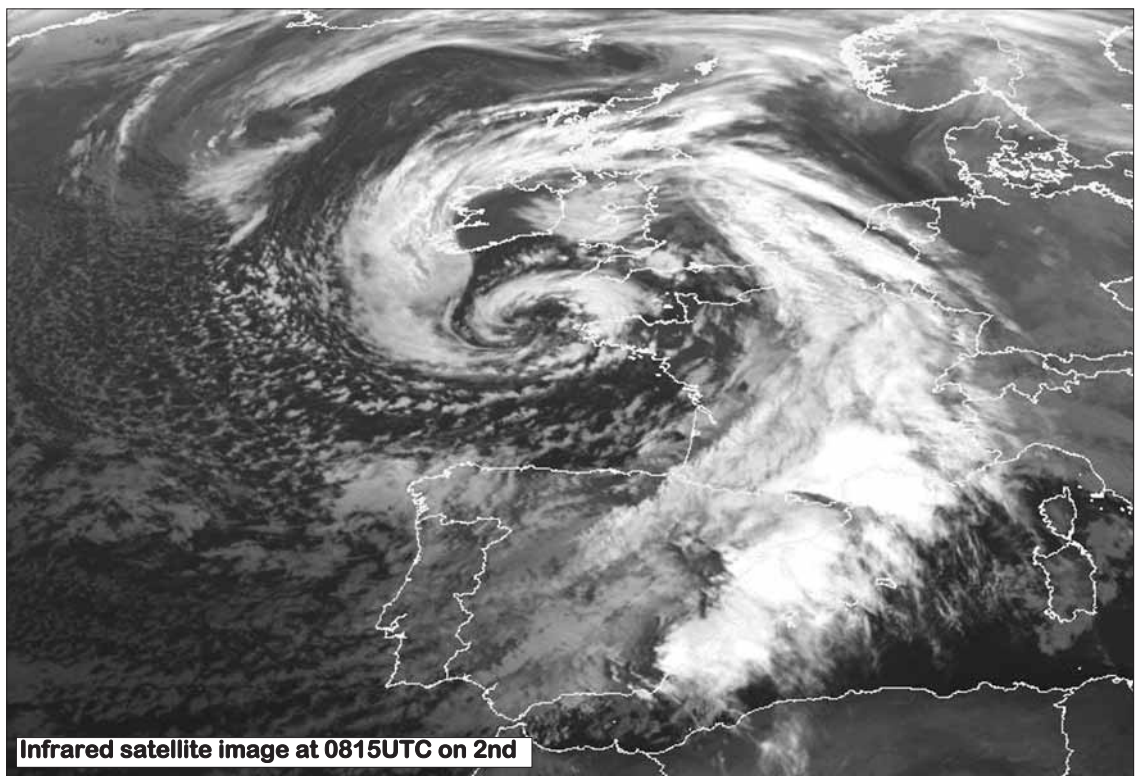
A severe storm also affected southern Lebanon (pictured top left) over the weekend of 24th/25th, with snowfalls amounting to 50cm in places. The worst affected areas were the mountainous regions of Bekaa and Rashaya, producing significant damage to crops. Unprecedented snowfall also affected Japan at the end of the month, resulting in six fatalities and causing major power cuts. More than 16,000 passengers were left stranded by the cancellation of over 300 domestic flights. Depth of snow records for December were broken in at least 35 places across the country, with Hiroshima recording the highest December snowfall since records started there in 1883.

drop in temperatures with some wintry showers and widespread frost, severe in inland areas; Ireland was less affected by severe cold conditions than other parts of Europe, however (see panel page 2). A warm front moving eastwards on the 29th was preceded by a spell of sleet or snow in many northern and eastern areas. This cleared eastwards to give much milder conditions at the end of the month, but with heavy showers in many areas.

Wind and elements: Mean windspeeds for the month were between 5 and 10

knots generally (9 and 19 km/hour); these values are more typical of those for a summer month. At both Rosslare and Cork Airport, mean windspeeds were the lowest on record for December. The highest gust of the month, 51 knots (94 km/hour), was measured at Belmullet on the 21st. Snow was recorded fairly widely on the 28th and 29th, while hail showers were measured on the 5th and 27th. Thunderstorm activity was confined to southern coastal areas in the period 1st/2nd. Fog was most widespread on the 9th, 13th and in the period 24th to 25th.

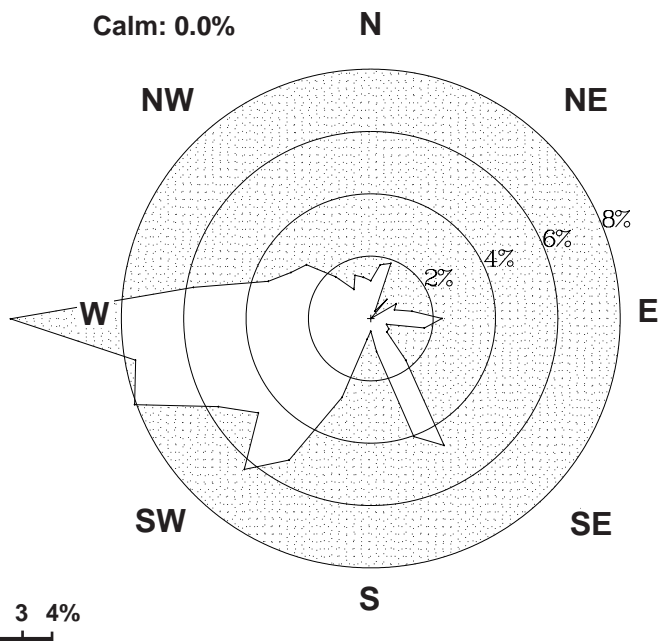
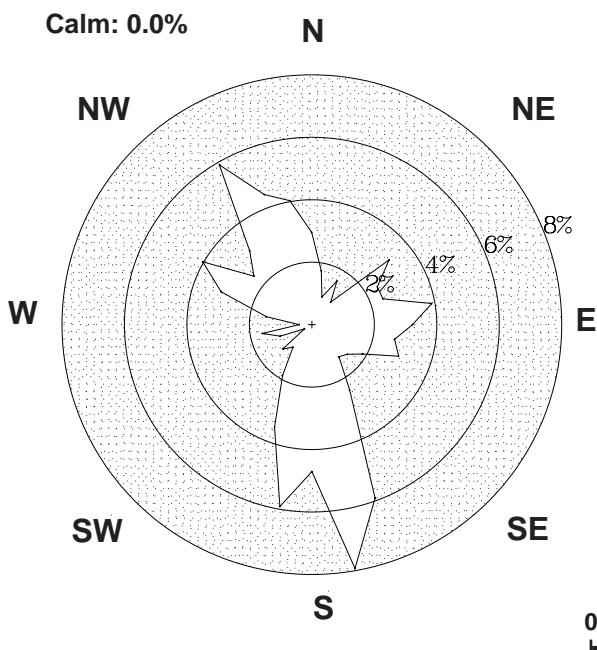
A band of heavy rain associated with a depression to the south of Ireland affected southern counties early on the 2nd. Valentia Observatory's rainfall total for the day of 52mm was its highest daily fall for December since 1983, while its 6-hour fall recorded between 0300 and 0900UTC was 43mm. This value has a return period for any month of around 20 years, meaning that such a fall would be expected at the station only once in 20 years.



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	7.6	290°	29	31/18	250°	44	31/1509	0	4	19	1	0	0	0	4
CO. CORK CORK AIRPORT	8.6	300°	29	16/02	270°	48	31/1645	0	5	26	1	0	0	0	11
		280°	29	31/17											
CO. DONEGAL MALIN HEAD	13.7	150°	34	29/15	150°	50	29/1433	1	12	87	0	0	1	0	1
CO. DUBLIN CASEMENT AERODROME	8.5	180°	32	29/19	180°	44	29/1750	0	4	7	0	0	1	0	5
DUBLIN AIRPORT	9.8	300°	27	7/19	300°	36	7/1832	0	3	4	0	0	0	0	2
		270°	27	15/24											
CO. KERRY VALENTIA OBSERVATORY	9.6	290°	34	31/16	300°	52	31/1738	1	7	50	0	0	1	0	1
CO. KILKENNY KILKENNY	5.8	310°	23	16/01	310°	34	16/0010	0	1	1	n/a	0	---	n/a	---
CO. MAYO BELMULLET	10.3	210°	33	21/01	240°	53	30/1709	0	10	72	1	0	1	0	2
KNOCK AIRPORT	8.9	290°	26	15/22	250°	46	30/1450	0	4	9	0	0	0	0	15
CO. MONAGHAN CLONES	6.9	310°	22	18/16	310°	35	16/0348	0	2	2	n/a	1	---	n/a	---
CO. OFFALY BIRR	6.4	150°	19	29/13	150°	32	29/1244	0	0	0	n/a	0	---	n/a	---
CO. WESTMEATH MULLINGAR II	6.0	150°	18	29/15	150°	31	29/1326	0	0	0	n/a	0	---	n/a	---
CO. WEXFORD ROSSLARE	8.5	210°	24	1/07	180°	39	1/0432	0	6	28	0	0	0	0	1
					70°	39	2/0011								

Valentia Observatory

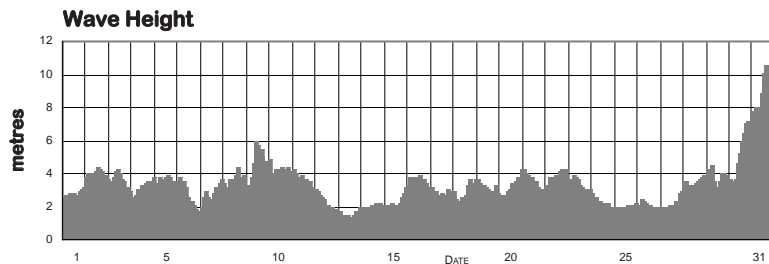
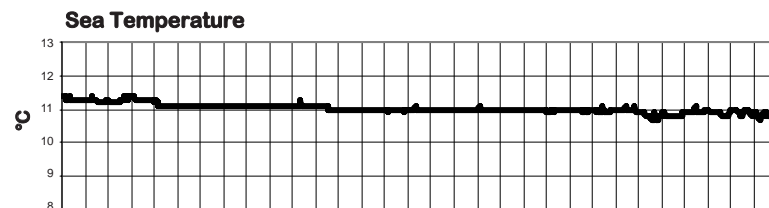
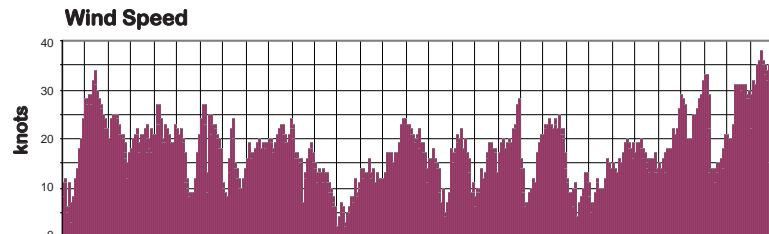
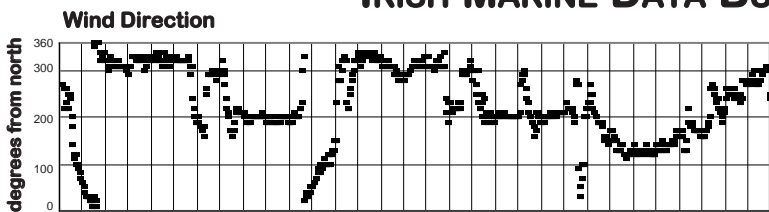
Dublin Airport



0 1 2 3 4%

FREQUENCY OF WIND DIRECTION

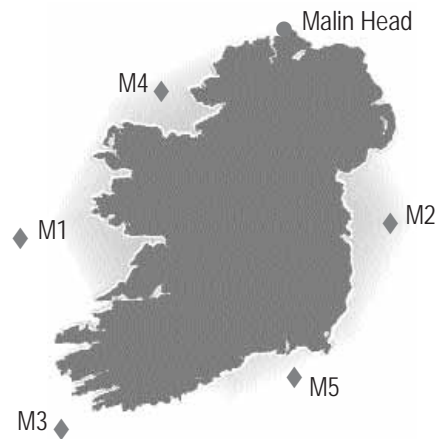
MARINE OBSERVATIONS FROM IRISH MARINE DATA BUOY NETWORK



Hourly wind and wave conditions at M3 (51°13'N, 10°33'W)

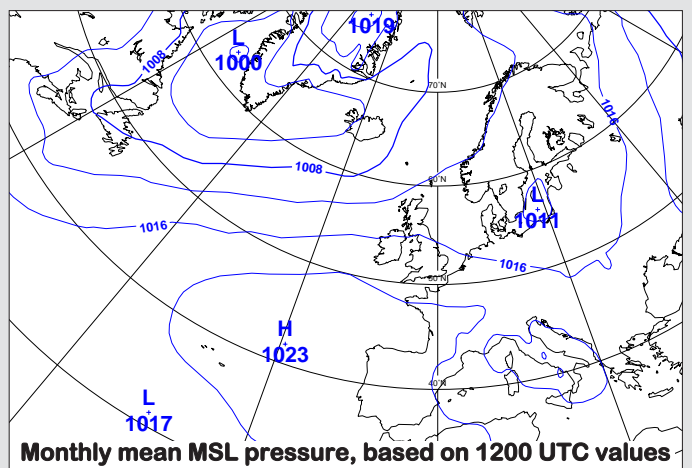
Buoy	Sea surface temp. (°C)	Mean wind speed (knots)	Max. 10-min wind (knots)	Mean wave height (m.)	Max. wave height (m.)
M1	11.0	17.3	38	3.2	10.5
M2	11.7	17.0	40	1.3	3.7
M3	11.2	16.8	36	3.0	10.1
M4	10.9	17.0	35	2.8	8.1
M5	11.4	16.8	31	1.3	3.6
Malin Head	9.9 (1.4°C above normal)				

Summary of Mean Monthly Values

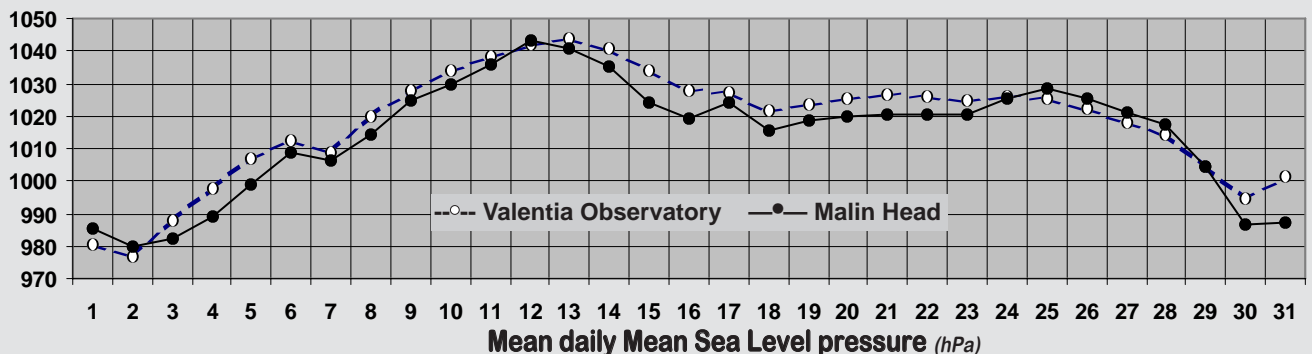


MEAN ATMOSPHERIC PRESSURE

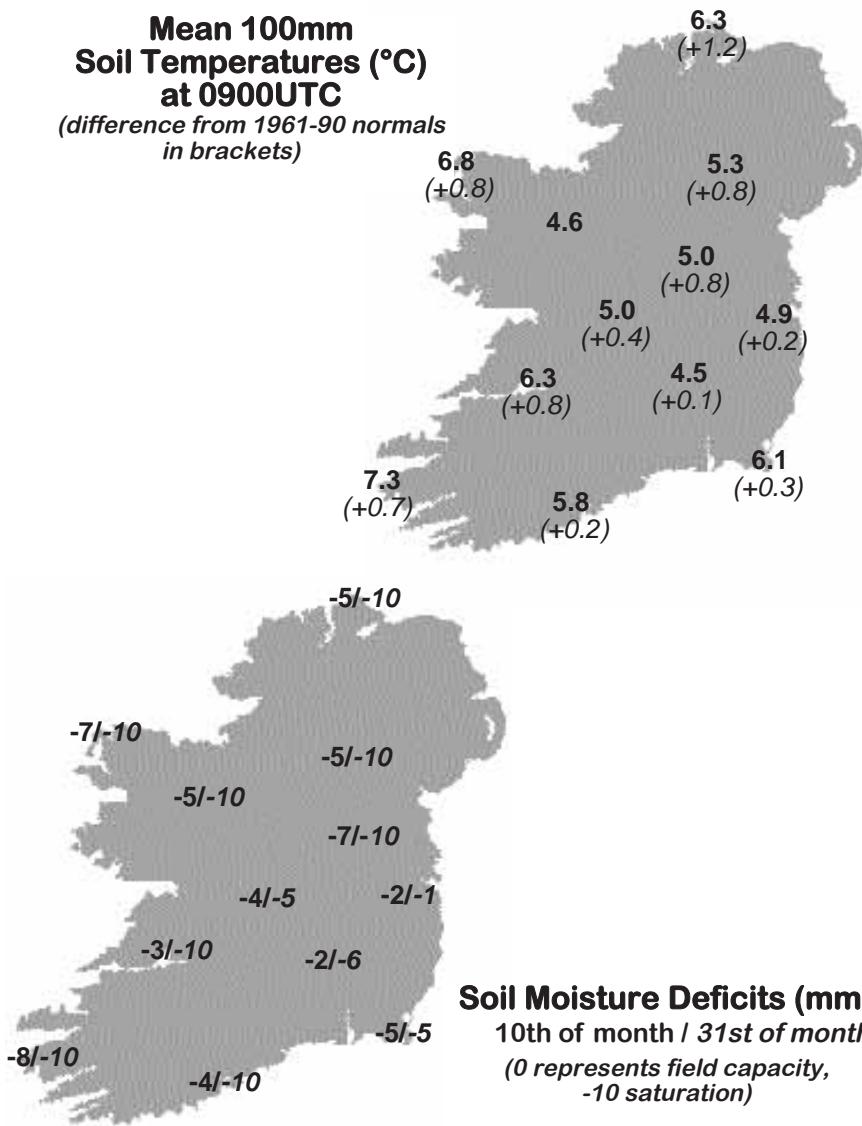
There was a wide variation in pressure values during the month, with low pressure during the first and final weeks, but above normal values during the middle part of the month. Mean sea level pressure values overall varied between 1015hPa in the north and 1018hPa in the south, around 6hPa higher than normal generally. The lowest pressure value of the month, 967.8hPa, was recorded at Kilkenny on the 2nd, while the highest value, 1046.8hPa, was measured at Knock Airport on the 12th.



Monthly mean MSL pressure, based on 1200 UTC values



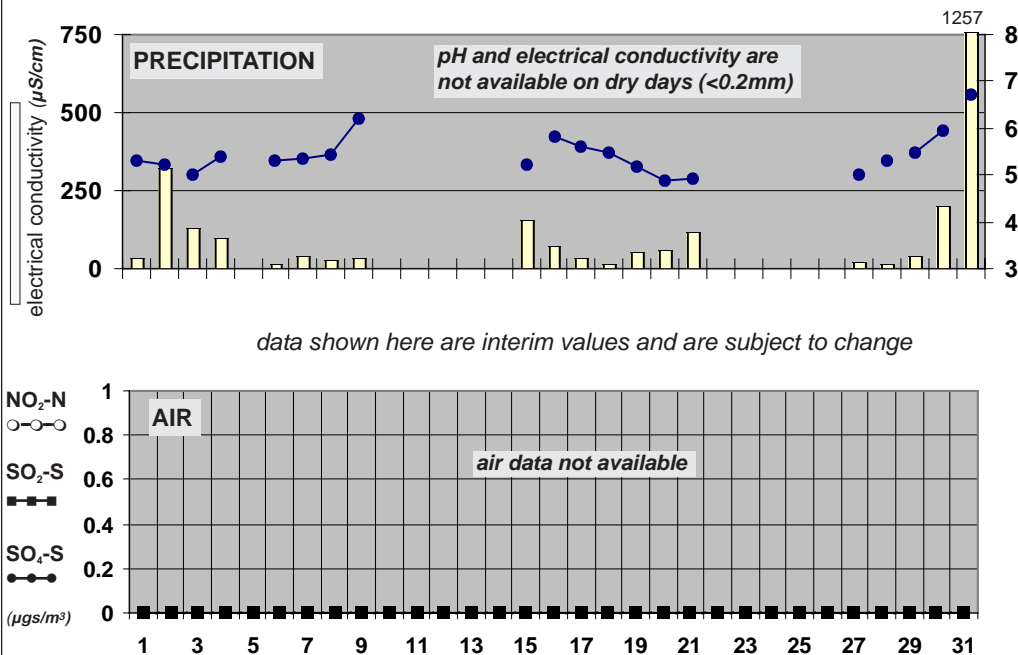
**Mean 100mm
Soil Temperatures (°C)
at 0900UTC**
*(difference from 1961-90 normals
in brackets)*



Soil Temperatures at 0900UTC

County/ Station	°C		
	100mm	200mm	300mm
CO. CLARE			
SHANNON AIRPORT	6.3	6.9	7.6
CARRON	6.6		7.1
CO. CORK			
FERMOY (MOORE PARK)	7.0	7.1	7.4
CORK AIRPORT	5.8	6.5	7.2
SHERKIN ISLAND	7.6		8.7
BALLINCURRIG (PEAFIELD)	5.4	6.2	6.9
CO. DONEGAL			
MALIN HEAD	6.3	7.2	8.4
CO. DUBLIN			
DUBLIN AIRPORT	5.1	5.5	6.0
CASEMENT AERODROME	4.9	5.4	6.2
CO. KERRY			
VALENTIA OBSERVATORY	7.3	7.8	8.8
CO. KILKENNY			
KILKENNY	4.5	5.2	6.0
CO. LIMERICK			
MOUNT RUSSELL	5.5	5.9	
CO. LOUTH			
ARDEE (BOHARNAMOE)	5.6	5.8	5.8
CO. MAYO			
BELMULLET	6.8	7.6	8.3
STRAIDE	6.2		
KNOCK AIRPORT	4.6	5.3	6.1
CO. MEATH			
WARRENSTOWN	4.8	5.4	5.9
CO. MONAGHAN			
CLONES	5.3	5.6	5.9
CO. OFFALY			
BIRR	5.0	5.9	7.1
CO. TIPPERARY			
FETHARD (PARSONSHILL)	5.4	6.2	
CO. WATERFORD			
DUNGARVAN (CARRIGLEA)		6.8	7.3
CO. WESTMEATH			
MULLINGAR II	5.0	5.6	6.2
CO. WEXFORD			
JOHNSTOWN CASTLE	5.7	6.3	6.7
ROSSLARE	6.1	6.8	8.2
JOHN F. KENNEDY PARK	5.2	6.4	7.7
CLONROCHE (KNOXTOWN)	5.6	5.8	6.7

**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				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)
Co. Cavan	1-10	39.7	-	8	6	8.7	1.9	5.4	-	-2.0	7	1			-5.0	7	2	-	-	11.7	-	-	-
Cavan	11-20	5.9	-	5	2	9.2	2.8	6.0	-	-3.5	13	3			-5.0	13	4	-	-	8.2	-	-	-
(Loreto) *	21-end	25.2	-	7	5	8.1	3.1	5.6	-	-3.6	28	4			-7.3	28	8	-	-	6.9	-	-	-
	month	70.8	-	20	13	8.6	2.6	5.6	-	-3.6	28	8			-7.3	28	14	-	-	26.4	-	-	-
Co. Cork	1-10	45.2	-	9	7	9.3	2.6	6.0	-	-2.1	7	1	22	2	n/a			6.4	7.0	20.3	-	0.9	-
Fermoy	11-20	4.2	-	5	3	10.2	3.6	6.9	-	-2.4	13	2	31	2	n/a			7.5	7.8	17.8	-	0.8	-
(Moorepark)	21-end	25.9	-	4	4	9.1	3.7	6.4	-	-3.0	28	3	29	2	n/a			7.0	7.4	11.4	-	1.2	-
	month	75.3	67	18	14	9.5	3.3	6.4	0.5	-3.0	28	6	82	5	n/a			7.0	7.4	49.5	121	0.9	0
Co. Donegal	1-10	55.8	-	9	9	9.0	2.9	6.0	-	-1.1	6	2	23	2	-2.9	6	6	-	-	-	-	-	-
Glenties	11-20	20.5	-	9	7	9.8	4.1	7.0	-	-1.4	13	2	30	1	-2.5	13	3	-	-	-	-	-	-
	21-end	44.6	-	7	5	7.7	1.9	4.8	-	-2.5	27	4	18	0	-4.2	26	5	-	-	-	-	-	-
	month	120.9	70	25	21	8.8	2.9	5.9	0.5	-2.5	27	8	71	3	-4.2	26	14	-	-	-	-	-	-
Co. Kerry	1-10	71.5	-	8	8	10.1	4.6	7.4	-	2.5	1	0	31	3	-3.7	1	7	-	-	10.7	-	-	-
Ardfert	11-20	17.0	-	7	4	10.2	5.0	7.6	-	0.5	13	0	35	2	-6.1	13	6	-	-	4.3	-	-	-
	21-end	22.9	-	7	6	9.5	4.9	7.2	-	-0.9	28	1	35	2	-6.1	28	5	-	-	11.0	-	-	-
	month	111.4	-	22	18	9.9	4.8	7.4	-	-0.9	28	1	101	7	-6.1	13	18	-	-	26.0	-	-	-
Co. Louth	1-10	58.0	-	8	5	9.0	3.4	6.2	-	-1.1	7	1	22	1	-2.5	7	2	5.5	5.7	-	-	-	-
Ardee	11-20	3.1	-	2	1	9.0	2.5	5.8	-	-3.1	13	3	22	0	-2.3	13	5	5.6	6.1	-	-	-	-
	21-end	19.1	-	5	3	8.5	2.7	5.6	-	-4.2	28	3	24	0	-6.6	28	5	5.6	5.7	-	-	-	-
	month	80.2	89	15	9	8.8	2.9	5.9	-	-4.2	28	7	69	1	-6.6	28	12	5.6	5.8	-	-	-	-
Co. Waterford	1-10	47.3	-	8	6	10.5	3.7	7.1	-	-1.7	7	1	31	3	-3.0	7	4	-	7.3	27.0	-	1.3	-
Dungarvan	11-20	2.4	-	5	1	10.4	2.2	6.3	-	-2.5	13	4	27	2	-4.3	13	5	-	7.4	17.5	-	0.9	-
(Carriglea)	21-end	32.4	-	4	4	9.6	3.9	6.8	-	-4.0	28	2	32	2	-5.9	28	3	-	7.4	8.9	-	1.8	-
	month	82.1	-	17	11	10.2	3.3	6.8	-	-4.0	28	7	90	8	-5.9	28	12	-	7.3	53.4	-	1.3	0
Co. Wexford	1-10	31.8	-	6	5	9.6	4.6	7.1	-	1.7	7	0	28	1	-2.1	7	1	5.7	6.6	11.6	-	-	-
Johnstown Castle	11-20	4.5	-	4	3	10.5	4.1	7.3	-	-0.2	18	1	32	2	-3.2	18	5	5.5	6.7	25.0	-	-	-
	21-end	19.3	-	6	2	9.6	4.9	7.3	-	-0.7	29	1	35	3	-6.7	29	2	5.9	6.7	12.3	-	-	-
	month	55.6	50	16	10	9.9	4.5	7.2	0.9	-0.7	29	2	95	6	-6.7	29	8	5.7	6.7	48.9	94	-	-

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

County/ Station	Period	P.E. (mm)		Soil Moisture (mm)	
		Amount	Deficit	Accum'ltd Deficit	Surplus
Co. Kerry					
	1-10	8.7	-	0	100
Valentia Obs.	11-20	3.8	-	0	8
	21-end	12.4	-	0	25
	month	24.9			
Co. Wexford					
	1-10	15.3	-	0	36
Johnstown Castle	11-20	0.5	-	0	4
	21-end	13.9	-	0	6
	month	29.7			

MONTHLY EVAPORATION (MM) FROM CLASS A PAN

County	Station	Monthly Rainfall (mm)	Monthly Evaporation (mm)
Clare	Kilmaley	120.8	6.4
Cork	Fermoy (Moorepark)	75.3	5.9
Kerry	Valentia Observatory	152.4	22.2
Kildare	Poulaphuca	55.0	1.8
Mayo	Newport (Furnace)	162.9	0.0
Offaly	Derrygreenagh	52.4	2.3
Waterford	Dungarvan (Carriglea)	82.1	8.5
Wexford	Johnstown Castle	55.6	14.1

P.E. (Penman)

County/ Station	total for month (mm)		GLOBAL SOLAR RADIATION (MJ/sq. m.)			
			10-day totals			Total for month
			1-10	11-20	21-end	
Co. Clare	Shannon Airport	1				
Co. Cork	Cork Airport	0				
Co. Donegal	Malin Head	8	10.29	10.28	15.93	36.50
Co. Dublin	Dublin Airport	0	15.56	23.39	16.76	55.71
	Casemt Aerodrome	0				
Co. Kerry	Valentia Obs.	5	20.18	17.27	19.22	56.67
Co. Kilkenny	Kilkenny	0	23.83	24.05	20.36	68.24
Co. Mayo	Belmullet	0	15.29	15.74	18.68	49.71
	Knock Airport	0				
Co. Monaghan	Clones	0	14.74	15.41	15.49	45.64
Co. Offaly	Birr	0	20.78	20.15	21.31	62.24
Co. Westmeath	Mullingar	0				
Co. Wexford	Rosslare	2				

SEE BACK PAGE OF JANUARY ISSUE FOR NOTES ON THE DATA

Thursday 1st: Rain along western coasts moved eastwards overnight and cleared the east coast by around midday. The rain was heavy at times. Colder, drier weather with sunny spells and occasional showers followed. Heavy rain moved into the southwest towards midnight. Moderate and gusty southeasterly winds decreased light, later increasing again during the evening in the south.

Rainfall: 4 to 19mm, heaviest at Rosslare, 4mm at Belmullet

Temperature: max. 7°C to 11°C, min. 2°C to 6°C, ground temperatures down to -3°C at Dublin Airport

Sunshine: trace to 5 hours, sunniest at Belmullet

Friday 2nd: Heavy rain in the south moved northwestwards in the early hours of the day, giving some very heavy falls in the southwest and west. Further heavy showers in the north and northeast during the afternoon, while the south had some sunny spells. Northeasterly winds were moderate and gusty overnight, decreasing during the day and backing northwesterly.

Rainfall: 5 to 52mm, heaviest at Valentia, 32mm at Belmullet, 5mm at Rosslare

Temperature: max. 6°C to 10°C, min. 2°C to 6°C, ground temperatures down to -2°C at Cork Airport

Sunshine: nil to 6 hours, sunniest at Cork Airport

Saturday 3rd: Rain along the east coast during the night with a few showers elsewhere. Slight to sharp frost in some inland areas. Spells of rain or showers in most areas during the period, more frequent in western and northern areas. A few sunny spells in places but overall cloudy. Winds from a southwest to northwesterly direction, generally light.

Rainfall: nil to 11mm, heaviest at Dublin Airport, nil at Mullingar

Temperature: max. 7°C to 11°C, min. 2°C to 7°C, ground temperatures down to -1°C at Shannon Airport

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

Sunday 4th: Showers and outbreaks of rain overnight with some mist and fog in places also. The showers continued in northern areas through the morning, mostly dry and sunny elsewhere. Showers during the afternoon, evening and night, again mainly confined to northern areas. The southern half of the country remained mainly dry. Light to moderate northwesterly winds.

Rainfall: nil to 9mm, heaviest at Malin Head, nil at Kilkenny

Temperature: max. 6°C to 9°C, min. 2°C to 8°C, ground temperatures down to -1°C at Clones

Sunshine: nil to 6 hours, sunniest at Kilkenny, nil at Clones

Monday 5th: Some showers overnight, mainly in western areas, while it was dry with clear spells elsewhere and some ground frost in places. The showers continued in the west and north throughout the day, while remaining dry with some sunshine elsewhere. Showers during the evening in the west and north. Rain spread from the north late in the evening. Fresh northwesterly winds.

Rainfall: nil to 6mm, heaviest at Malin Head

Temperature: max. 5°C to 9°C, min. 1°C to 7°C, ground temperatures down to -1°C at Shannon Airport

Sunshine: nil to 7 hours, sunniest at Kilkenny, nil at Malin Head

Tuesday 6th: Showers moved southwards along Atlantic coasts during the morning, becoming more scattered during the afternoon. Elsewhere it was a mostly dry day with some mist and fog in places at first, but cloudy skies began to clear after dawn and it was sunny in most places for a time. Frost after dark except in coastal areas. Light, variable winds slackened through the day to near calm conditions in most places.

Rainfall: nil to trace generally, 2mm at Belmullet

Temperature: max. 8°C to 10°C, min. -2°C to 5°C, ground temperatures below zero at all inland stations, down to -7°C at Kilkenny

Sunshine: 3 to 7 hours, sunniest at Cork Airport, 3 hours at Valentia

Wednesday 7th: Mostly dry and cold overnight with mist, fog and frost in places. Rain in the west early in the morning spread quickly eastwards; the rain was heavy in places. A wet afternoon in all areas, but a clearance reached the west coast by late afternoon. This clearance spread across the country during the evening, however rain still persisted along northern and eastern coasts up to end of period. Winds were southerly, light to moderate with occasional higher gusts, veering west to northwesterly during the afternoon.

Rainfall: 9 to 27mm, heaviest at Valentia, 9mm at Mullingar

Temperature: max. 7°C to 11°C, min. -3°C to 6°C, ground temperatures below zero at all inland stations, down to -7°C at Dublin Airport

Sunshine: nil generally, 2 hours at Valentia, <1 hour at Cork Airport

Thursday 8th: Showers and patchy rain in places overnight but dry periods also. Dry in most places for the morning with rain getting into southwestern and western areas before noon. This rain spread eastwards through the afternoon with heavy falls in places. The rain continued through the evening and night. Winds were light to moderate, variable in direction.

Rainfall: 1 to 8mm, heaviest at Knock Airport, 1mm at Rosslare

Temperature: max. 6°C to 12°C, min. 1°C to 6°C ground temperatures down to -3°C at Mullingar

Sunshine: nil to <1 hour, sunniest at Malin Head

Friday 9th: A dull and overcast day throughout with virtually no sunshine. Showers of rain and drizzle affected most parts, with the southwest receiving the heaviest falls while the east remained relatively dry. Milder than of late, with no ground frost. Winds were light, southwesterly in direction.

Rainfall: trace to 6mm, heaviest at Valentia, trace at Kilkenny

Temperature: max. 11°C to 14°C, min. 6°C to 11°C, no ground frost

Sunshine: nil generally, 1 hour at Casement Aerodrome

Saturday 10th: An overcast day throughout with just occasional sunny spell in places. Light falls of rain or drizzle, mainly in coastal areas with many inland areas remaining dry. Relatively mild for the time of year. No ground frost. Winds were light to moderate, southerly in direction.

Rainfall: nil to >1mm, heaviest at Valentia and Rosslare

Temperature: max. 10°C to 13°C, min. 8°C to 11°C, no ground frost

Sunshine: nil to trace generally

Sunday 11th: Most places had a dry start to the day but cloudy and damp weather on northwestern coasts moved slowly southwards in the afternoon and evening. Rainfall amounts were small. Afternoon temperatures were slightly above normal and the southeastern half of the country got most sunshine. Clearer weather followed on in the evening. Light to moderate southerly winds, fresh and gusty at times on northwestern coasts, veered northwesterly with the passage of the front and eased slightly.

Rainfall: nil to <1mm generally, 2mm at Knock Airport

Temperature: max. 10°C to 12°C, min. 3°C to 9°C, ground temperatures down to -2°C at Kilkenny

Sunshine: nil to 6 hours, sunniest at Rosslare, nil at Malin Head and Belmullet

Monday 12th: A cold frosty night with fog in parts of the midlands. The fog was slow to clear in some areas, however it was a generally sunny day with the fog lifting by noon. It turned cold again quickly after dark with frost and fog returning. Winds were light, northerly or variable in direction.

Rainfall: nil to <1mm, heaviest at Rosslare

Temperature: max. 6°C to 11°C, min. -3°C to 6°C, ground temperatures below zero at all inland stations, down to -7°C at Dublin Airport

Sunshine: 1 to 7 hours, sunniest at Mullingar and Kilkenny

Tuesday 13th: Sharp to severe frost during the night with fog, dense in places. Dry with light winds. Frost and fog were slow to clear many areas during the morning. Dry except for some drizzle in northern areas. A few sunny periods, mainly in the south and east. Slight frost during the evening. Mainly light variable winds, somewhat fresher in northern areas.

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

Temperature: max. 5°C to 11°C, min. -5°C to 6°C, ground temperatures below zero at all inland stations, down to -10°C at Birr

Sunshine: nil to 6 hours, sunniest at Rosslare

Wednesday 14th: Light rain or drizzle in the west and northwest during the early hours, becoming more widespread during the day. Some breaks in the cloud in the south and east, duller elsewhere. It became dry in the northern half of the country by evening. Mild. Winds were mostly light northwesterly, moderate for a while in the north early in the day.

Rainfall: nil to 2mm, heaviest at Knock Airport

Temperature: max. 9°C to 11°C, min. 5°C to 9°C, no ground frost

Sunshine: nil to 1 hour generally, 2 hours at Rosslare

Thursday 15th: Patchy light rain or drizzle throughout the day. Mild. Some breaks in the cloud in the south and east, but staying dull further north. Winds were between west and northwesterly, generally light at first but becoming moderate or fresh during the evening, strong in the extreme north.

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

Temperature: max. 9°C to 12°C, min. 7°C to 10°C, no ground frost

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

Friday 16th: Showers in the west and north early in the period spread to most parts during the day, although amounts were quite small with parts of the south and southeast staying completely dry. Some sunny spells in the southeast and north midlands, duller elsewhere. Winds were northerly, moderate to strong and gusty, easing slightly during the day.

Rainfall: nil to 3mm, heaviest at Knock Airport, nil at Rosslare

Temperature: max. 6°C to 11° min. 3°C to 10°C, ground temperatures down to -1°C at Mullingar

Sunshine: nil to 5 hours, sunniest at Rosslare, nil at Valentia

Saturday 17th: Patchy rain during the night became heavy in places, especially in the west. Dry further east. A mostly dry morning and afternoon apart from patches of drizzle. Sunny spells in the east and southeast. Frost developed shortly after dark in many places. Light northerly winds backed westerly later.

Rainfall: nil to 2mm, heaviest at Cork Airport

Temperature: max. 6°C to 11° min. -3°C to 7°C, ground temperatures below zero at all inland stations, down to -8°C at Kilkenny

Sunshine: nil to 5 hours, sunniest at Rosslare

Sunday 18th: Patches of rain and drizzle, mainly in western areas, with some fog patches also. The frost and fog lifted during the morning and it was a dull day with outbreaks of rain and drizzle. The rain was heavy at times in the afternoon. Becoming dry and clear after dark with ground frost in places. Southerly winds, moderate to fresh and gusty, veered westerly and decreased.

Rainfall: 1 to 6mm, heaviest at Malin Head, 1mm at Rosslare

Temperature: max. 8°C to 11°C, min. -3°C to 5°C, ground temperatures below zero at all inland stations, down to -8°C at Dublin Airport

Sunshine: nil to <1 hour generally, 1 hour at Casement Aerodrome

Monday 19th: Apart from occasional showers on northern coasts, the day was generally dry and cold with some short sunny spells. Southern coastal areas recorded most sunshine. Light rain moved into the west from the Atlantic later on in the evening. Light variable winds generally, moderate to fresh and gusty northwesterly on northern coasts, backing southerly later.

Rainfall: nil to 1mm, heaviest at Valentia

Temperature: max. 5°C to 10°C, min. -2°C to 7°C, ground temperatures down to -7°C at Kilkenny

Sunshine: nil to 4 hours, sunniest at Cork Airport

Tuesday 20th: Patches of light rain or drizzle in many areas during the night, with fog in some parts, especially the south. Mostly dry and cloudy for the rest of the period with some brief periods of sunshine. South to southeasterly winds, light to moderate initially but becoming moderate to fresh in northern and northwestern regions, up to gale force at times with gusts.

Rainfall: nil to 2mm, heaviest at Knock Airport

Temperature: max. 9°C to 12°C, min. 2°C to 10°C, ground temperatures down to -2°C at Dublin Airport

Sunshine: nil to 2 hours, sunniest at Casement Aerodrome, nil at Knock Airport

Wednesday 21st: A band of rain along northwestern coastal areas pushed southeastwards, the rain stalling over Munster and becoming light before returning northwards in the evening. Southern coastal areas remained dry throughout. Generally mild and cloudy with very little sunshine. Winds were southwesterly, moderate to fresh and gusty, backing southerly and decreasing.

Rainfall: nil to 6mm, heaviest at Shannon Airport, nil at Cork Airport

Temperature: max. 9°C to 12°C, min. 4°C to 10°C, ground temperatures down to -1°C at Dublin Airport

Sunshine: nil to <1 hour generally, 2 hours at Clones

Thursday 22nd: Rain in Ulster cleared during the night. The day remained generally dry, however light rain affected western coasts during the evening. Mild and overcast throughout with no sunshine. Winds were southerly or southwesterly in direction, strongest near western coasts.

Rainfall: nil to <1mm generally, 4mm at Malin Head, 3mm at Belmullet

Temperature: max. 9°C to 12°C, min. 7°C to 11°C, no ground frost

Sunshine: nil

Friday 23rd: Cloudy during the night with some drizzle and light rain in parts. Some fog, dense in places. Just a slight frost in some inland areas. Cloudy during the rest of the period with only brief periods of sunshine and rain and drizzle in places at times. Fog returning after dark. Temperatures above normal overall. Winds from a southwesterly direction, light to moderate, a little fresher at times.

Rainfall: nil to 2mm generally, 6mm at Knock Airport

Temperature: max. 10°C to 13°C, min. 5°C to 9°C, ground temperatures down to -1°C at Kilkenny

Sunshine: nil to >1 hour, sunniest at Rosslare

Saturday 24th: Dry overnight with fog in places and some patchy rain along parts of the east coast. Dry during the morning but some fog patches lingered in places until noon. The afternoon continued dry with some sunshine. After dark, fog and mist became fairly widespread. Light variable winds.

Rainfall: nil to 1mm, heaviest at Casement Aerodrome

Temperature: max. 8°C to 10°C, min. 1°C to 8°C, ground temperatures down to -3°C at Birr

Sunshine: nil to 3 hours generally, 6 hours at Malin Head

Sunday 25th: Cold overnight with frost and fog in many places, slow to clear the midlands. Most areas had spells of sunshine, however some parts of the north midlands remained dull all day. Winds were light and variable throughout.

Rainfall: nil to trace

Temperature: max. 6°C to 11°C, min. -2°C to 7°C, ground temperatures down to -10°C at Birr

Sunshine: nil to 5 hours, sunniest at Belmullet, nil at Clones and Knock Airport

Monday 26th: Another cold night with frost and fog in midland areas. Virtually dry throughout with just a few light showers in the east in the evening. Sunshine in the west, mainly dull elsewhere. Light to moderate variable winds.

Rainfall: nil to trace generally, <1mm at Dublin Airport

Temperature: max. 3°C to 8°C, min. -2°C to 6°C, ground temperatures below zero at all inland stations, down to -10°C at Birr

Sunshine: nil to 2 hours generally, 6 hours at Belmullet

Tuesday 27th: A sunny morning over the midlands and west, with some fog in places. Cloud persisted in eastern areas with rain and drizzle in places. There were showers along eastern coasts, some of hail. Frost developed shortly after dark. Light to moderate, east to southeasterly winds.

Rainfall: nil to trace generally, <1mm at Dublin Airport

Temperature: max. 3°C to 8°C, min. -3°C to 4°C, ground temperatures below zero at all inland stations, down to -11°C at Birr, -10°C at Kilkenny

Sunshine: trace to 6 hours, sunniest at Belmullet, trace at Dublin Airport

Wednesday 28th: A very cold day with scattered wintry showers and sunny spells. The showers were mainly in the western half of the country, which also had the least amount of sunshine. Temperatures below normal. Outbreaks of rain in the southwest. Winds were light to moderate, southeasterly in direction.

Rainfall: nil to 1mm generally, 5mm at Valentia

Temperature: max. 1°C to 7°C, min. -5°C to 4°C, ground temperatures below zero at all inland stations, down to -12°C at Birr

Sunshine: nil to 5 hours, sunniest at Rosslare and Mullingar

Thursday 29th: The day started with heavy rain in the southwest and severe frost in the east. The rain spread quickly across the country, clearing the northeast by evening. Further rain in the southwest by evening, bringing milder conditions. Southerly winds, moderate to strong and gusty.

Rainfall: 1 to 21mm, heaviest at Valentia, 1mm at Casement Aerodrome

Temperature: max. 6°C to 12°C, min. -1°C to 6°C, ground temperatures down to -8°C at Dublin Airport

Sunshine: nil to trace

Friday 30th: A band of rain stretching from north Connacht to Rosslare moved gradually northeastwards, clearing the country by late morning. Heavy showers reached the west by early afternoon and spread eastwards, affecting most parts. Milder than of late. Light to moderate southwesterly winds.

Rainfall: 4 to 20mm, heaviest at Belmullet, 4mm at Kilkenny

Temperature: max. 10°C to 13°C, min. 5°C to 7°C, ground temperatures below zero at Kilkenny

Sunshine: trace to 4 hours, sunniest at Cork Airport, trace at Malin Head

Saturday 31st: It was a cool, windy day with scattered wintry showers and short sunny spells. Eastern areas received fewest showers. Moderate to fresh and gusty southwesterly winds were strong at times on Atlantic coasts.

Rainfall: nil to 19mm, heaviest at Cork Airport, nil at Rosslare

Temperature: max. 7°C to 10°C, min. 4°C to 7°C, ground temperatures below zero at Kilkenny

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

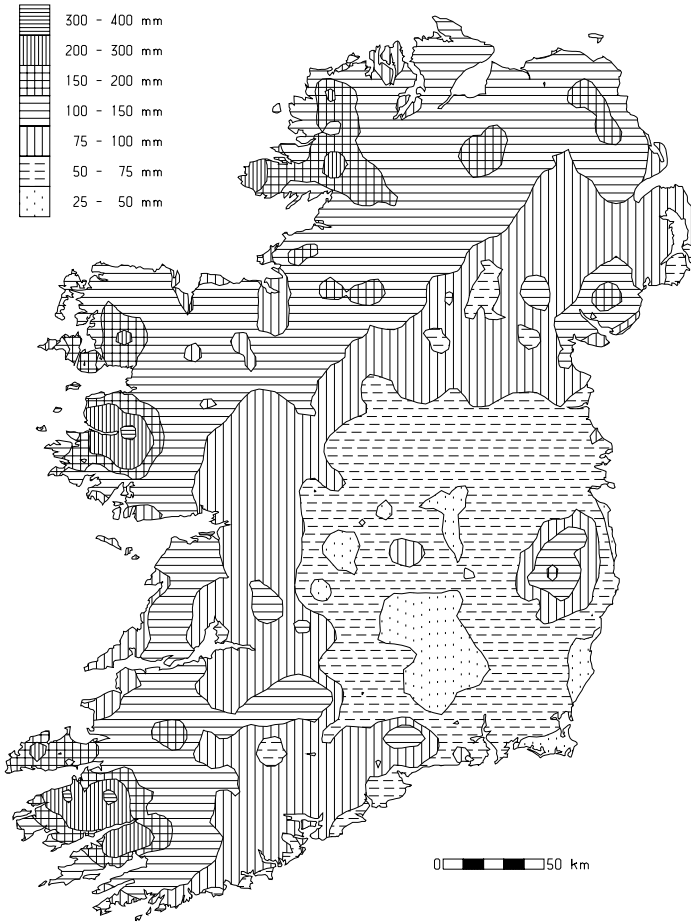
Dry over southern half, near normal in north

The month combined some very heavy falls over parts of the country during the first and final weeks, with mainly dry weather during the mid-month period. As a result, totals were close to normal over much of the country, but it was a relatively dry month over south Leinster and east Munster. Totals ranged from 38mm at Kilkenny to 282mm at Maam Valley, Co. Galway, with percentage of normal values between 44% at Kilkenny and 114% at Connemara National Park, Co. Galway.

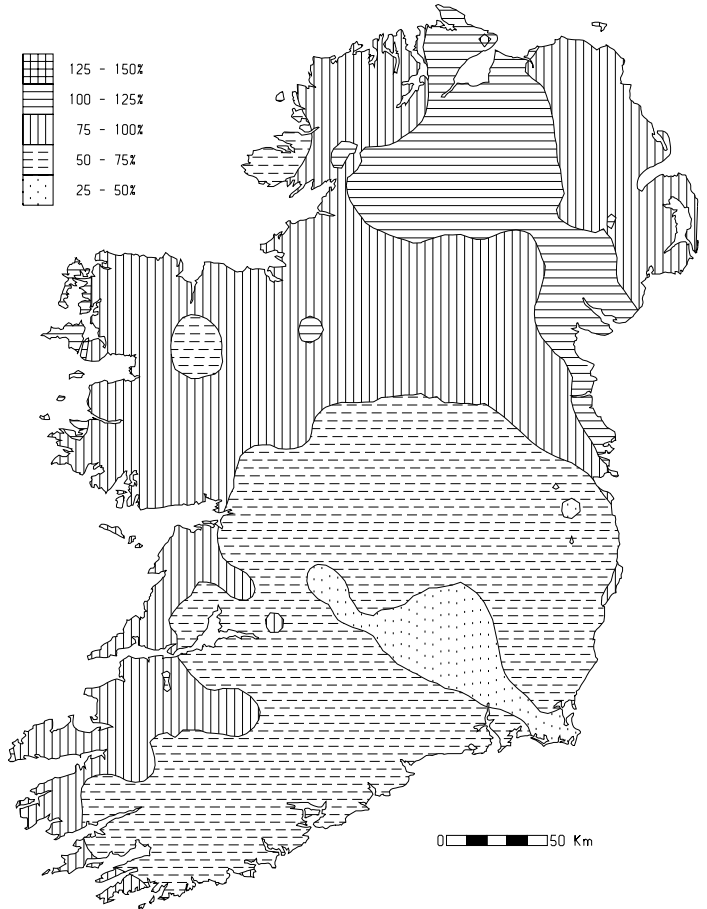
Most stations recorded their highest falls of the month during either of the periods 1st/2nd or 28th/29th. The start of the month was particularly wet in the southwest, as a deep depression moved close to the south coast (*see page 3*); Valentia Observatory recorded a fall of 52mm up to midnight on the 2nd, its highest December daily fall since 1983. There was a very wide variation in the number of wetdays (*days with 1mm or more of rainfall*) during the month; there were between 8 and 10 wetdays at many stations in the east and southeast, while over 20 wetdays were measured in parts of the west and northwest.

County/ Station	Total Amount (mm)	% of 1961-90 average	Most in a day / date		Number of Raindays (>0.2mm)	Wetdays (≥1mm)
<i>*replaces station at Ballinamore, which has closed</i>						
CO. CAVAN CAVAN (LORETO COLLEGE)*	70.8		13.8	29	20	13
CO. CLARE SHANNON AIRPORT	64.4	65	8.9	31	20	15
CARRON	132.0	80	18.0	29	28	19
CO. CORK FERMOY (MOORE PARK)	75.3	69	21.5	1	18	14
CORK AIRPORT	74.5	54	17.3	31	21	14
SHERKIN ISLAND	97.0	76	20.0	28	15	11
BALLINCURRIG (PEAFIELD)	92.6		23.0	1	20	14
CO. DONEGAL MALIN HEAD	103.8	101	15.6	29	18	16
BALLYSHANNON (CATHLEEN'S FALL)	98.0	92	14.7	29	22	16
GLENTIES	120.9	72	18.1	7	25	21
CO. DUBLIN DUBLIN (PHOENIX PARK)	56.4	69	20.0	2	12	8
DUBLIN AIRPORT	68.9		22.1	2	15	9
CASEMENT AERODROME	57.7	78	17.3	2	15	7
DUBLIN (MERRION SQUARE)	50.9	70	15.5	2	12	8
CO. GALWAY GALWAY (UNIV. COLL.)	101.5	84	14.8	22	19	16
MAAM VALLEY	282.2		32.1	31	26	22
CONNEMARA NATIONAL PARK	185.4	114	18.0	28	29	25
BALLYGAR	80.0	78	10.2	29	28	18
CO. KERRY VALENTIA OBSERVATORY	152.4	96	47.6	1	22	18
ARDFERT (LISCAHANE)	111.4		32.2	1	22	18
CO. KILKENNY KILKENNY	38.3	44	9.3	7	15	8
CO. LIMERICK MOUNT RUSSELL	116.2		19.8	1	25	17
CO. LOUTH ARDEE (BOHARNAMOE)	80.2	98	19.0	2	15	9
CO. MAYO BELMULLET	125.5	105	28.8	2	27	22
STRAIDE	89.4	69	10.3	28 31	24	17
KNOCK AIRPORT	102.8		20.3	29	26	20
CO. MEATH WARRENTOWN	70.0	78	14.8	2	16	10
CO. MONAGHAN CLONES	72.0	80	15.8	29	18	14
CO. OFFALY BIRR	49.2	63	11.4	7	20	13
DERRYGREENAGH	52.4	59	14.0	29	18	9
CO. SLIGO ARDTARMON	108.2		14.0	29	23	16
CO. TIPPERARY FETHARD (PARSONSHILL)	48.0		9.2	7	22	10
CO. WATERFORD WATERFORD (TYCOR)	64.9	61	16.0	7	15	11
DUNGARVAN (CARRIGLEA)	82.1		21.5	1	17	11
CO. WESTMEATH MULLINGAR II	62.7	68	14.2	29	16	12
CO. WEXFORD JOHNSTOWN CASTLE	55.6	51	17.0	29	16	10
ROSSLARE	44.6	46	14.6	29	13	5
JOHN F. KENNEDY PARK	53.2	51	13.4	29	17	9
CLONROCHE (KNOXTOWN)	56.2		14.8	29	17	9

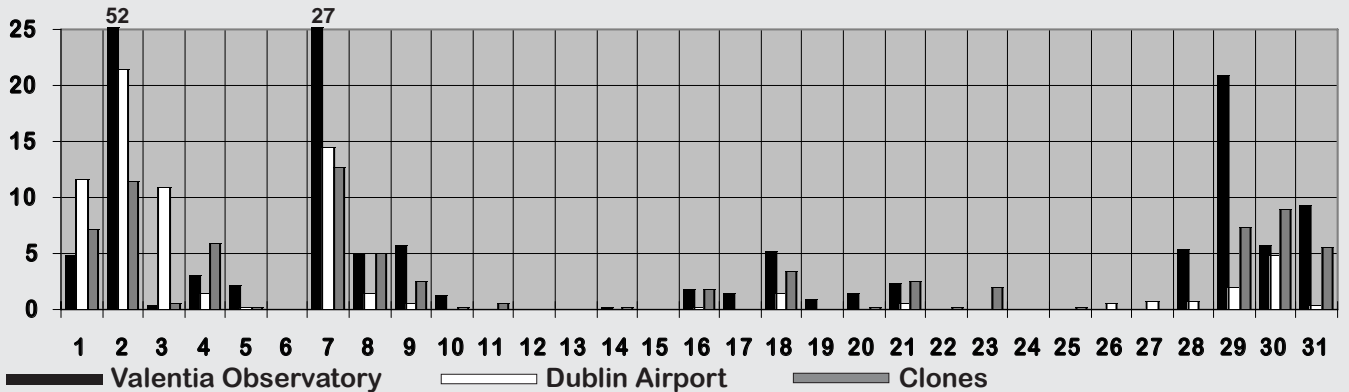
Total rainfall (mm)



Percentage of normal rainfall



Daily 0-24h rainfall values (mm)

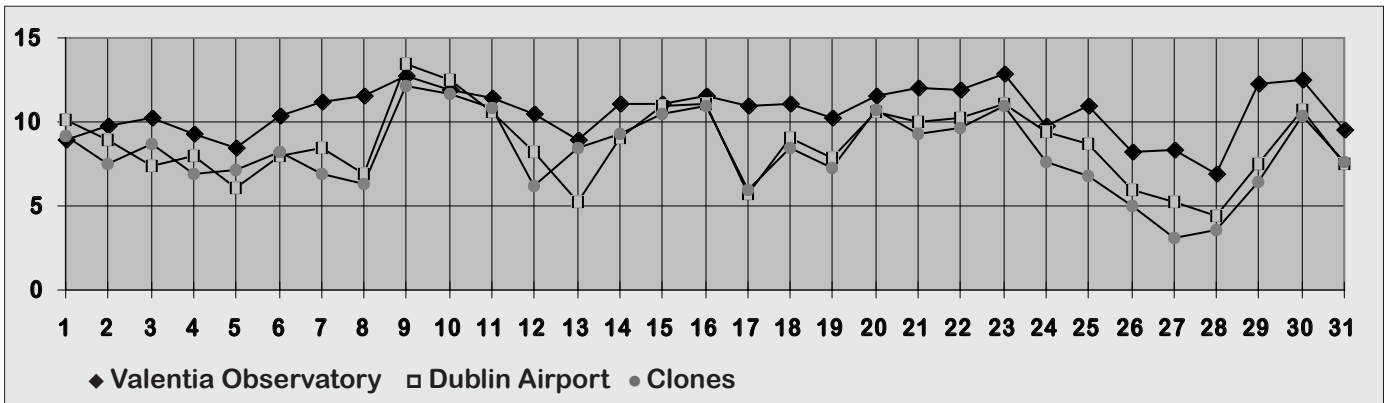


Warmer than normal for most of month

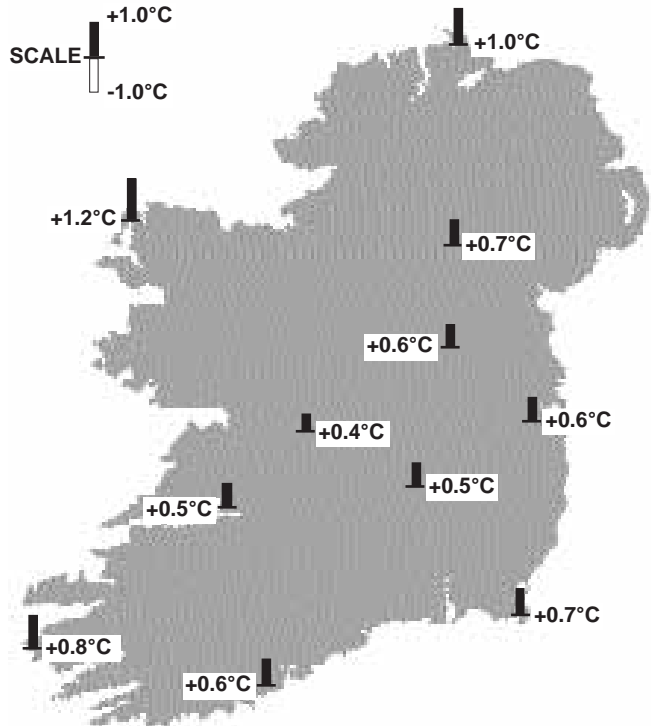
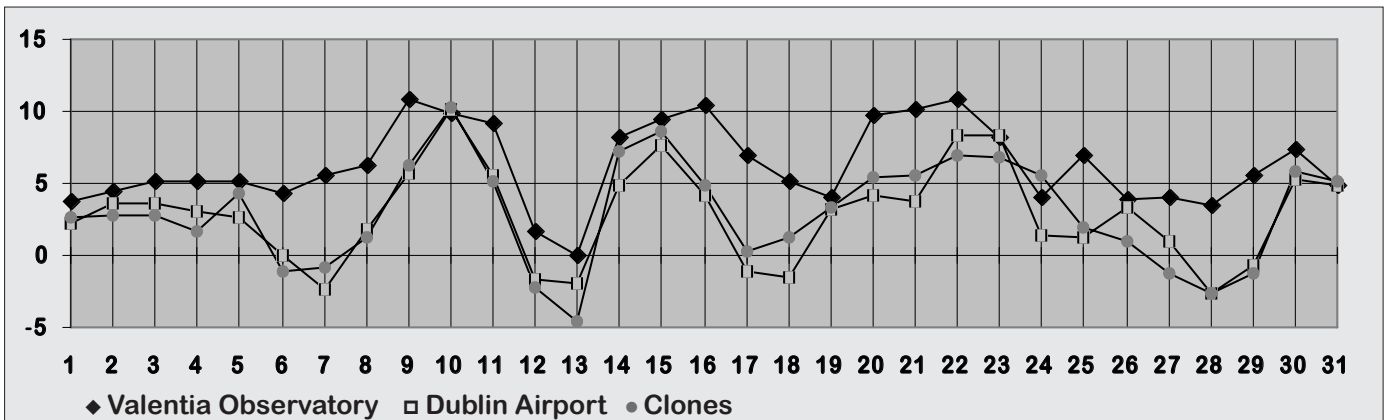
Temperatures during most of December were well above normal, but a spell of cold weather during the final week brought mean values overall closer to average values. Mean air temperatures for the month as a whole were above normal everywhere, by around half a degree generally but by over one degree at some coastal stations. Mean values ranged from 5.4°C at both Knock Airport and Derrygreenagh, Co. Offaly, to 8.4°C at Valentia Observatory.

Temperatures were above normal throughout most of the month, but there were short spells of colder weather at the beginning and again around the Christmas period. There was a total of between 4 and 8 air frosts recorded at most inland stations, compared with the normal range for December at these locations of between 9 and 11; while Kilkenny recorded as many as 11 air frosts, there were none observed at several coastal stations. The lowest air temperature of the month, -5.2°C, was measured at Casement Aerodrome on the 13th, while the lowest grass minimum value, -12.1°C, was recorded at Birr on the 28th. Most stations recorded their highest

Daily 0-24h maximum temperatures (°C)



Daily 0-24h minimum temperatures (°C)



Mean Temperature
(difference from 1961-90 normals)

temperatures of the month on the 9th, but the highest value, 14.7°C, was measured at John F Kennedy Park, Co. Wexford, on the 30th.

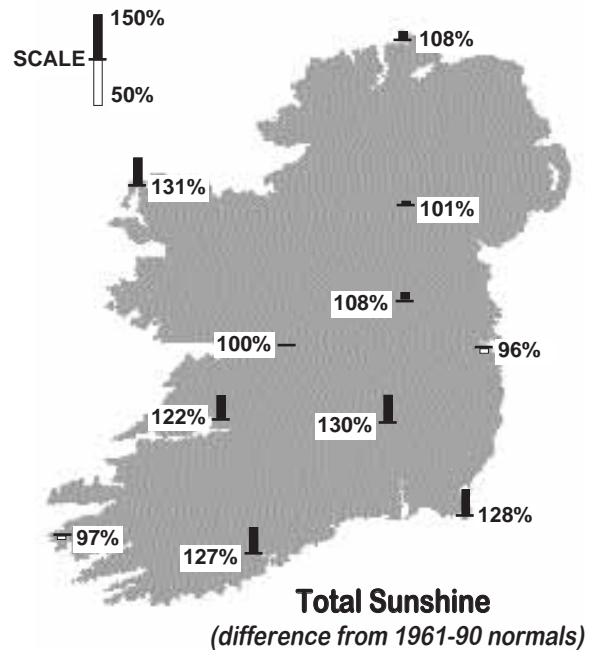
County/ Station	°C											
	Mean max.	Mean min.	Mean/ deviation from 1961-90 average		Highest max./date		Lowest min./date		Lowest grass min./date		Days with air frost ground frost	
<i>* replaces station at Ballinamore, which has closed</i>												
CO. CAVAN												
CAVAN (LORETO COLLEGE)*	8.6	2.6	5.6		12.4	9	-3.6	28	-7.3	28	8	12
CO. CLARE												
SHANNON AIRPORT	9.4	4.2	6.8	0.5	13.2	10	-2.4	28	-7.3	28	4	13
CARRON	9.0	3.7	6.4	1.2	12.1	9 10	-1.9	13	-8.9	28	4	15
CO. CORK												
FERMOY (MOORE PARK)	9.5	3.3	6.4	0.6	12.0	15 29	-3.0	28	n/a		6	
CORK AIRPORT	8.8	4.3	6.6	0.6	11.5	16	0.1	28	-3.6	7	0	12
SHERKIN ISLAND	10.5	6.0	8.3	0.7	13.4	16	1.5	28	-1.8	13	0	6
BALLINCURRIG (PEAFIELD)	9.1	2.9	6.0		11.7	16	-2.1	28	-4.4	28	6	11
CO. DONEGAL												
MALIN HEAD	9.2	5.3	7.3	1.0	12.9	9	-0.8	28	-3.1	28	2	7
BALLYSHANNON (CATHLEEN'S FALL)	9.2	3.9	6.6	0.9	13.0	9	-0.8	13			3	
GLENTIES	8.8	2.9	5.9	0.7	12.2	9	-2.5	27	-4.2	26	8	14
CO. DUBLIN												
DUBLIN (PHOENIX PARK)	8.8	3.1	6.0	0.7	13.8	9	-3.6	29	-8.6	29	6	20
DUBLIN AIRPORT	8.7	3.0	5.9		13.4	9	-2.7	28	-8.8	29	6	17
CASEMENT AERODROME	9.0	2.7	5.9	0.6	13.5	9	-5.2	13	-8.9	28	8	12
DUBLIN (MERRION SQUARE)	9.4	5.4	7.4	0.7	13.4	9 10	0.6	13			0	
CO. GALWAY												
GALWAY (UNIV. COLL.)	9.5	3.8	6.7	0.4	12.7	10	-2.7	28	-7.5	28	5	14
MAAM VALLEY	10.0	5.3	7.7		13.0	9	-0.8	13	-4.7	13	1	5
CONNEMARA NATIONAL PARK	9.5	5.4	7.5		12.1	9	1.4	13			0	
BALLYGAR	8.6	3.0	5.8		12.1	9	-3.0	28	-4.5	28	8	16
CO. KERRY												
VALENTIA OBSERVATORY	10.7	6.1	8.4	0.8	12.9	23	0.0	13	-4.6	13	0	7
ARDFERT (LISCAHANE)	9.9	4.8	7.4	0.7	13.5	9	-0.9	28	-6.1	13 28	1	18
CO. KILKENNY												
KILKENNY	9.1	2.2	5.7	0.5	12.1	10	-5.1	28	-11.6	28	11	22
CO. LIMERICK												
MOUNT RUSSELL	9.0	4.4	6.7		12.8	9	-1.3	28	-6.4	28	3	8
CO. LOUTH												
ARDEE (BOHARNAMOE)	8.8	2.9	5.9	0.9	11.8	9	-4.2	28	-6.6	28	7	12
CO. MAYO												
BELMULLET	10.0	5.5	7.8	1.2	12.2	9 22	0.0	13	-4.1	13	0	8
STRAIDE	9.3	3.4	6.4	0.7	12.8	9	-3.0	13	-6.5	13	5	14
KNOCK AIRPORT	7.6	3.2	5.4		11.2	9	-2.9	28	-4.2	28	7	9
CO. MEATH												
WARRENTOWN	8.4	3.0	5.7	0.7	12.0	9	-4.0	29	-8.0	29	6	11
CO. MONAGHAN												
CLONES	8.2	2.8	5.5	0.7	12.1	9	-4.6	13	-7.0	29	5	14
CO. OFFALY												
BIRR	8.8	2.8	5.8	0.4	12.7	9	-4.7	28	-12.1	28	8	14
DERRYGREENAGH	8.4	2.4	5.4	0.8	12.1	10	-5.0	28	-7.1	28	8	16
CO. SLIGO												
ARDTARMON	9.1	4.4	6.8		11.9	9	-1.0	26	-2.5	13	2	11
CO. TIPPERARY												
FETHARD (PARSONSHILL)	8.4	2.6	5.5		12.0	9	-3.9	14	-4.5	28	6	9
CO. WATERFORD												
WATERFORD (TYCOR)	10.0	4.1	7.1	1.0	12.5	16	-1.4	28			3	
DUNGARVAN (CARRIGLEA)	10.2	3.3	6.8	0.6	13.5	10	-4.0	28	-5.9	28	7	12
CO. WESTMEATH												
MULLINGAR II	8.2	2.4	5.3	0.6	11.8	9	-4.2	28	-10.0	28	7	18
CO. WEXFORD												
JOHNSTOWN CASTLE	9.9	4.5	7.2	1.1	12.5	16 23	-0.7	29	-6.7	29	2	8
ROSSLARE	9.7	5.6	7.7	0.7	12.0	9	2.3	18	-3.5	18	0	4
JOHN F. KENNEDY PARK	9.5	3.2	6.4	0.6	14.7	30	-5.0	28	-7.2	28	6	18
CLONROCHE (KNOXTOWN)	9.1	2.7	5.9		12.0	23	-4.4	28 29	-9.9	28		

County/ Station	Daily mean (hours/day)	% of average	% of possible	Most in a day/date
<i>* replaces station at Ballinamore, which has closed</i>				
CO. CAVAN CAVAN (LORETO COLLEGE)*	0.89			4.1 6
CO. CLARE SHANNON AIRPORT	1.73	122	22	6.3 6
CO. CORK FERMOY (MOORE PARK)	1.60	121	20	5.2 6
CORK AIRPORT	2.03	130	26	6.5 6 12
SHERKIN ISLAND	2.23	166	28	6.1 4
BALLINCURRIG (PEAFIELD)	2.05			6.6 6
CO. DONEGAL MALIN HEAD	0.97	108	13	6.1 6
BALLYSHANNON (CATHLEEN'S FALL)	1.25	126	17	6.3 6
CO. DUBLIN DUBLIN AIRPORT	1.46	89	19	6.2 12
CASEMENT AERODROME	1.45	97	19	5.2 11 12
CO. GALWAY GALWAY (UNIV. COLL.)	1.78	152	23	6.5 27
CO. KERRY VALENTIA OBSERVATORY	1.14	97	15	4.8 27
ARDFERT (LISCAHANE)	0.84		11	3.0 24
CO. KILKENNY KILKENNY	1.91	129	25	6.6 5 12
CO. MAYO BELMULLET	1.41	131	19	6.2 27
STRAIDE	1.22			6.2 27
KNOCK AIRPORT	1.10			6.0 12
CO. MONAGHAN CLONES	1.15	101	15	6.1 6 12
CO. OFFALY BIRR	1.42	101	18	5.6 5
CO. WATERFORD DUNGARVAN (CARRIGLEA)	1.72	119	22	6.3 12
CO. WESTMEATH MULLINGAR II	1.65	108	22	6.6 6 12
CO. WEXFORD JOHNSTOWN CASTLE	n/a			n/a
ROSSLARE	2.25	129	29	6.5 5
JOHN F. KENNEDY PARK	2.27	157	29	6.1 5
CLONROCHE (KNOXTOWN)	1.98			6.6 5

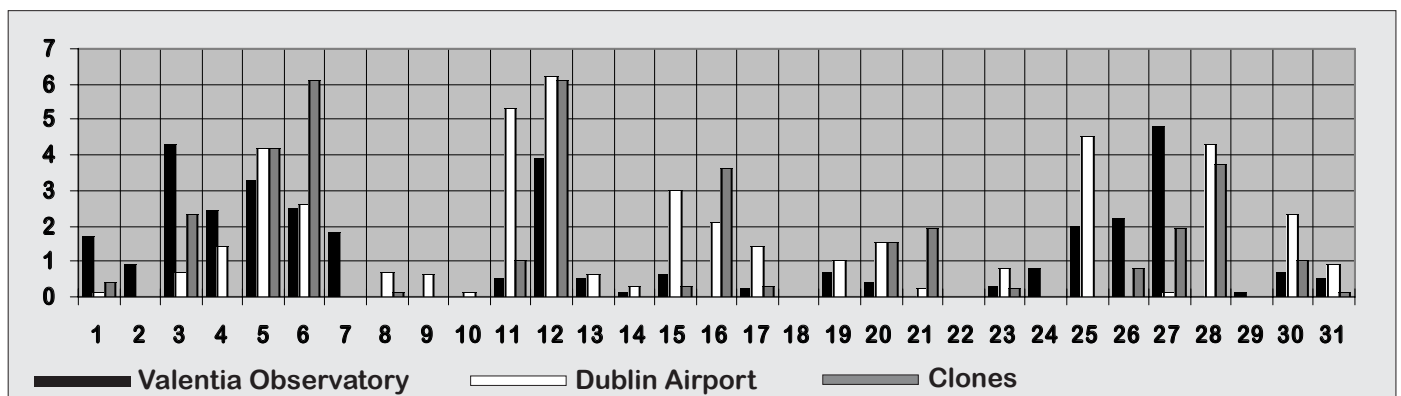
Sunnier than normal almost everywhere

Sunshine totals for the month were above normal almost everywhere, but it was a little duller than normal in parts of the east and southwest. Totals ranged from 26 hours at Ardfert (Liscahane), Co. Kerry, to 70 hours at John F Kennedy Park, Co. Wexford, with percentage of normal values between 89% of normal at Dublin Airport and 166% at Sherkin Island, Co. Cork. At no station were totals as high as the exceptionally sunny December of 2001.

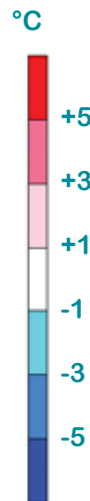
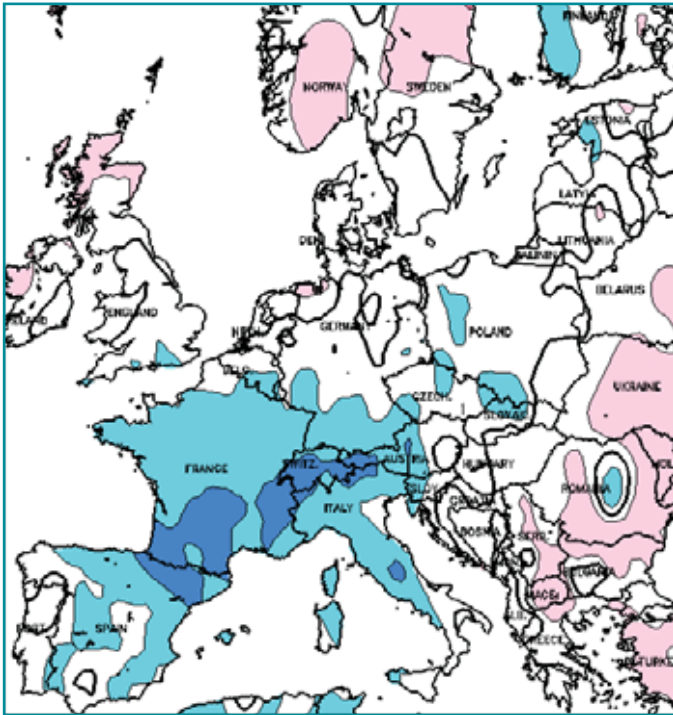
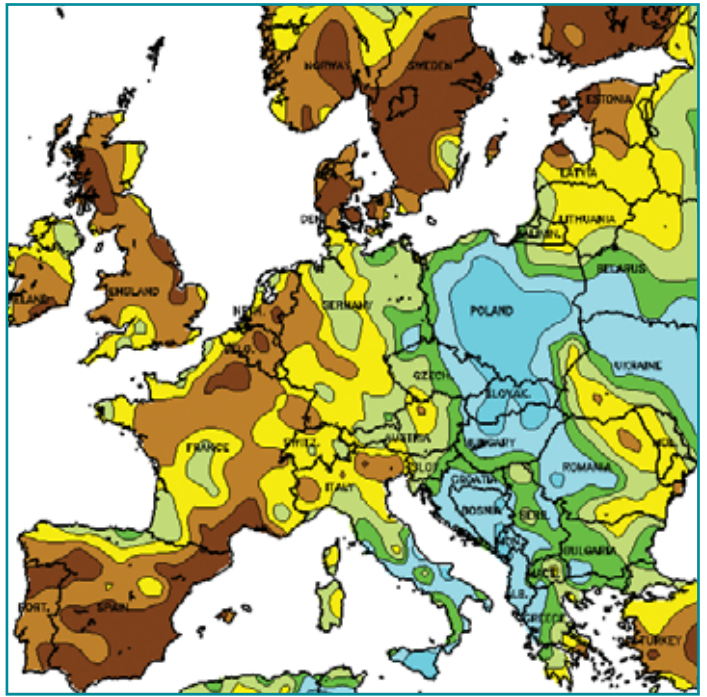
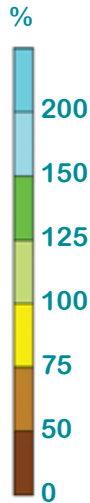
The sunniest days of the month were in the periods 5th/6th, 11/12th and 27th. The highest daily value, 6.6 hours, was measured at a number of stations on the 5th, 6th and 12th. Global solar radiation totals were between 95% of normal at Malin Head and 118% at Kilkenny.



Daily sunshine values (hours)



DECEMBER RAINFALL
(percentage of 1961-1990 normal)



DECEMBER MEAN TEMPERATURE
(difference from 1961-1990 normal)

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

A world map with color-coded regions and text boxes providing weather highlights for December 2005. The map shows North America in green, South America in yellow, Africa in red, and Australia in blue. Text boxes describe events in the US, Atlantic, Kenya, and Australia.

Global weather highlights of the month

Across the United States, moderate to severe drought persisted over parts of the Rockies. More significant drought affected northern Illinois, while exceptional drought classification was measured over parts of Arkansas, Oklahoma and Texas, where grassfires developed in the extremely dry conditions.

While hurricane **Epsilon** did not affect land areas, it became the 14th hurricane of the 2005 Atlantic season. Tropical storm **Zeta** later formed in open Atlantic Ocean waters, the unprecedented 27th named storm of the record-breaking Atlantic hurricane season.

The continuing lack of any significant rainfall across the eastern half of Kenya and southern Somalia has produced severe drought conditions. In eastern Kenya, where 30% of the livestock have died, an estimated 2.5 million people were in need of emergency food and other aid.

The so-called northeast monsoon produced extremely heavy rainfall in parts of the Malay Peninsula during mid-December. In Thailand, 52 deaths were attributed to flooding in what was described as the region's worst flooding in nearly 30 years.

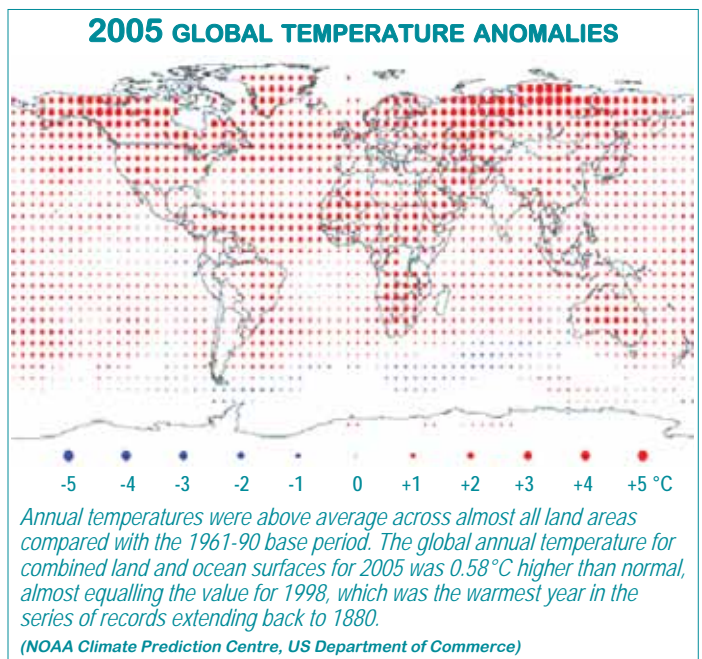
A heatwave affected eastern Australia during the last 10 days of the month. Melbourne recorded 42.9°C on the 31st, the highest December temperature in the city since 1898. Averaged across Australia, it was the 7th warmest December on record.

Warmest for 7 or 8 years in many places; mainly dry with sunshine totals near normal

Mean air temperatures for the year were around one degree above normal for the 1961-90 period. At many stations it was the warmest year since either 1997 or 1998, while at Casement Aerodrome it was the warmest year since records began there in 1964. Mean temperature values for May and November were near normal, but they were above average for every other month and were particularly high relative to normal for January, March, June and October. The hottest weather of the year was during the first half of July, especially between the 10th and 12th, when maxima reached over 25°C in most places; a number of stations measured their highest maxima since 1995 on these days. The lowest air and ground temperatures of the year were recorded during a spell of exceptionally cold weather in early March.

Annual rainfall totals were below normal except at Atlantic coastal stations. Although totals in the Dublin area were around 10% below normal, at no station was it as dry as the exceptionally dry year of 2001. February, March and December were the driest months compared to the average, while both April and May were wet. July and October brought some very

heavy falls at times in the east and south; over 50mm was measured near southern coasts on July 24th and another 100mm fell in the same area in the 4-day period between October 17th and 20th. The number of raindays (days with 0.2mm or more rainfall) measured during the year was also below normal generally; there were between 180 and 220 raindays recorded in Leinster, with around 250 recorded in Connacht and west Munster. Annual sunshine totals were close to normal generally. March, June and July were relatively dull, while totals for May, August and particularly November were above normal. More than 15 hours of sunshine were recorded over most of Munster and Leinster on both June 27th and July 11th.



County/ Station	RAINFALL (mm)			TEMPERATURE (°C)			SUNSHINE (HOURS)			NO. OF DAYS WITH:						
	Total	% of average	Most in a day amount date(s)	Mean	diff. from average	Extremes Highest Lowest	Daily mean	% of average	Most in a day amount date(s)	Rain	Snow	Air frost	Hail	Thunder	Fog	Gale gusts
CO. CLARE SHANNON AIRPORT	914.2	99	40.0 7 Jan	11.0	+0.9	28.0 -2.8	3.60	103	15.3 27 Jun	219	5	20	12	5	25	51
CO. CORK CORK AIRPORT	1191.7	100	66.3 24 Jul	10.3	+0.9	26.2 -2.2	3.81	100	15.5 27 Jun	208	9	9	4	2	113	69
CO. DONEGAL MALIN HEAD	1086.1	102	30.2 11 Feb	10.4	+1.1	23.4 -0.8	3.30	97	14.5 13 May	229	10	3	40	1	8	140
CO. DUBLIN DUBLIN AIRPORT	683.1		32.6 28 Jul	10.2		24.8 -3.4	3.77	97	15.6 11 Jul	192	14	32	19	7	32	68
CASEMENT AERODROME	624.2	88	31.4 28 Jul	10.4	+1.1	27.3 -5.6	3.55	98	15.5 11 Jul	181	16	42	18	8	19	75
CO. KERRY VALENTIA OBSERVATORY	1500.1	105	52.0 2 Dec	11.5	+1.1	26.2 -1.2	3.53	104	15.2 11 Jun	235	4	5	19	3	15	91
CO. KILKENNY KILKENNY	757.9	92	35.8 21 Mar	10.5	+1.2	29.2 -5.1	3.75	107	15.4 27 Jun	193	n/a	41	---	n/a	---	33
CO. MAYO BELMULLET	1220.1	107	31.7 2 Dec	11.1	+1.5	24.5 -1.1	3.48	99	14.8 6 Jun	255	12	7	40	5	15	113
KNOCK AIRPORT	1205.6		39.2 25 May	9.1		25.9 -3.4	3.10		14.5 14 May	278	18	25	13	2	155	79
CO. MONAGHAN CLONES	852.7	92	27.2 24 Oct	10.0	+1.2	28.6 -4.6	3.24	102	14.1 14 May	211	n/a	21	---	n/a	---	39
CO. OFFALY BIRR	789.0	98	44.9 7 Jan	10.5	+1.2	28.4 -4.7	3.14	94	14.8 11 Jun	214	n/a	37	---	n/a	---	28
CO. WESTMEATH MULLINGAR II	866.7	93	36.6 7 Jan	9.9	+1.1	27.2 -4.4	3.68	105	15.0 11 Jul	216	n/a	41	---	n/a	---	23
CO. WEXFORD ROSSLARE	853.5	97	51.6 24 Jul	11.2	+1.1	22.5 0.0	4.43	102	15.6 11 Jul	183	8	0	12	4	27	107