

eDeposit Ireland

Monthly Weather Bulletin October 2000

Item Type	report
Publisher	Met Éireann
Rights	Y
Download date	2026-04-21 08:06:06
Link to Item	https://hdl.handle.net/20.500.14765/70006



No. 174

Published by Met Éireann,
Glasnevin Hill, Dublin 9

Monthly Weather Bulletin

OCTOBER
2000

*Launch of first
Marine Data Buoy
from Galway*

-see page 3

INSIDE

Weather	2	Rain/all	6	Temperature	8	Sunshine	9
Marine/Agmet	10	Features	12	Diary	14	Tables	16

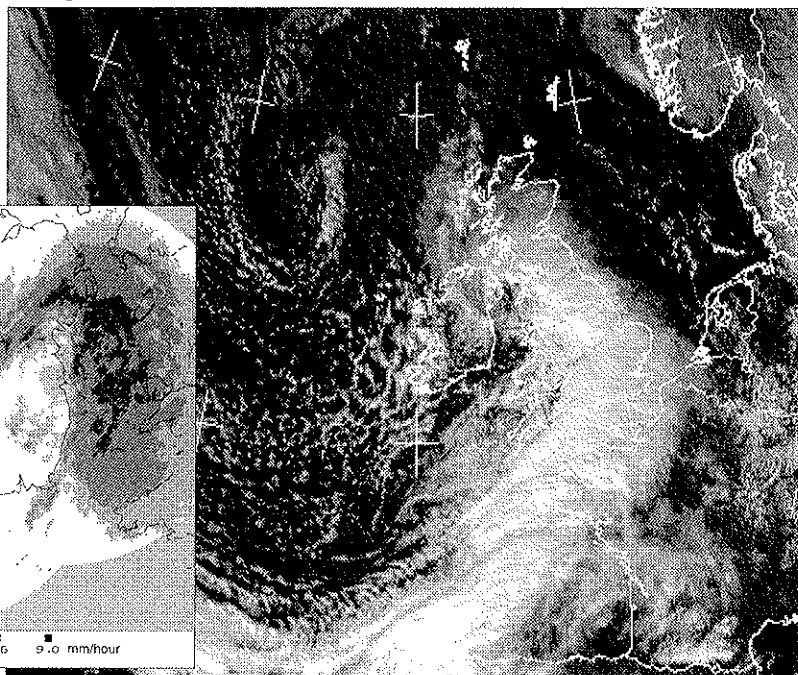
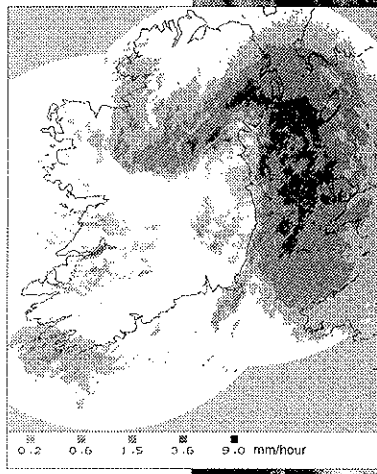
VERY UNSETTLED; COOL AND WET BUT SUNNY EVERYWHERE

Following mostly disturbed weather during September, October was another very unsettled month caused by a succession of Atlantic depressions close to or over Ireland. Rainfall totals were above normal everywhere, with some rainfall measured on all but two or three days at many stations. Despite the wet weather, it was sunnier than normal everywhere and totals were well above normal in the south and southeast. It was cool for much of the month, however, and mean temperatures were the lowest for October for seven years. Some of the low pressure systems near Ireland during the month were very deep and had strong winds associated with them; a number were former hurricanes or tropical storms. As a result mean windspeeds for the month were above

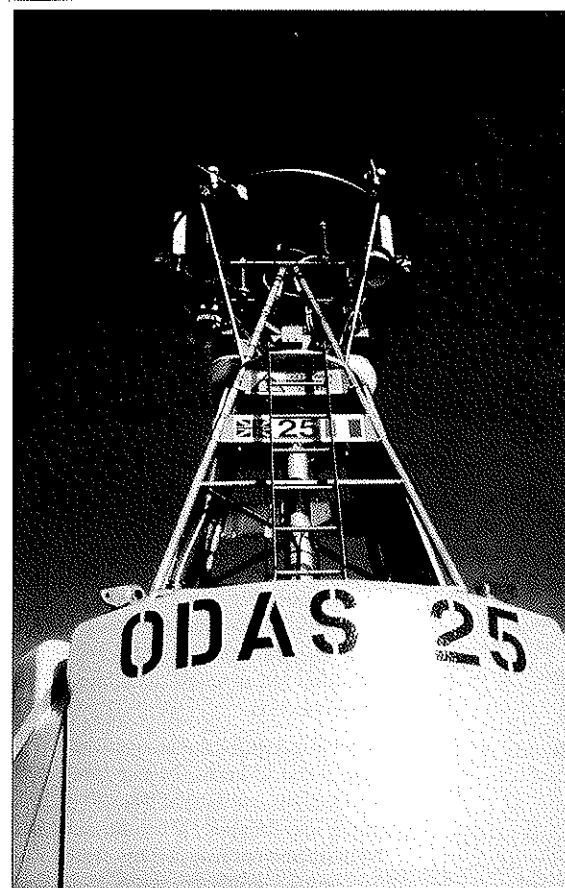
normal almost everywhere and were well above the October normal in the northern half of the country.

Low pressure dominated the weather over Ireland from the beginning of the month. A deep depression moved close to the northwest coast on the 1st, spreading a band of rain eastwards in a strong southerly airstream. Winds veered westerly and reached gale force in the north on the 2nd, while showers became widespread and heavy here also. A complex depression- the former hurricane *Isaac*- introduced very mild air in a gale force southerly airstream on the 3rd as it brought a spell of generally light rain northwards, with heavier falls again in the north of the country. After a dry start on the 4th, a band of frontal rain crossed eastwards during the afternoon, bringing

Below and right October was a month of persistent cyclonic activity over Ireland, with rain on almost every day. These pictures show a rainbelt clearing eastwards early on the 9th; falls of between 10 and 25mm were widely recorded.



LAUNCH OF IRISH MARINE BUOY NETWORK IN GALWAY



A report by a Fishing Vessel Safety Review Group in 1996 recommended that more observations from buoys at specific locations around Ireland would lead to better weather forecasts, which in turn would lead to improved safety at sea. The Irish Marine Data Buoy Network was formally launched on October 20th in Galway. This new network is a collaborative venture between Met Éireann, the Marine Institute and the U.K. Met Office (UKMO), who have many years of experience in deploying and operating ocean buoys.

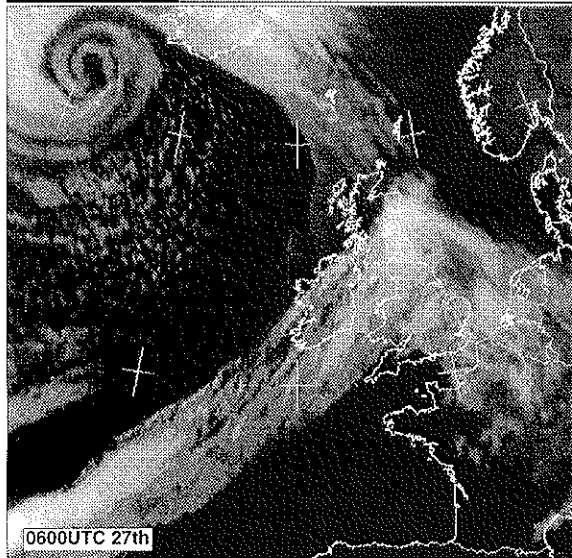
The first buoy in the network (pictured on left) was supplied by the UKMO, for deployment by the Marine Institute's research vessel, *Celtic Voyager* (cover picture), at 53° 07.6'N, 11° 12'W, in 200m of water. It has dual sets of sensors to measure wind direction & speed, air temperature, atmospheric pressure, sea surface temperature, wave height and period, and also a dual transmission system. Power is provided by lead acid gel batteries which are charged by solar panels. Data from the sensors are transmitted hourly to Meteosat, thence to the ground station at Darmstadt and on to the UKMO who put the data into Ship Code format.

The first buoy in what will be a network of five around the Irish coast was placed in position in early November. The next in the series is planned for the Irish Sea, east of Dublin, in 2001. The UKMO and the Marine Institute will work with Irish and international companies to develop a new technologically advanced buoy that will have the added capability of collecting other data such as seawater temperature, salinity and currents. There are plans to include the data from the buoys with the coastal reports of the Sea Area Forecast on Weatherdial FAX, on the Marine Institute's website, and on the proposed Met Éireann website also.

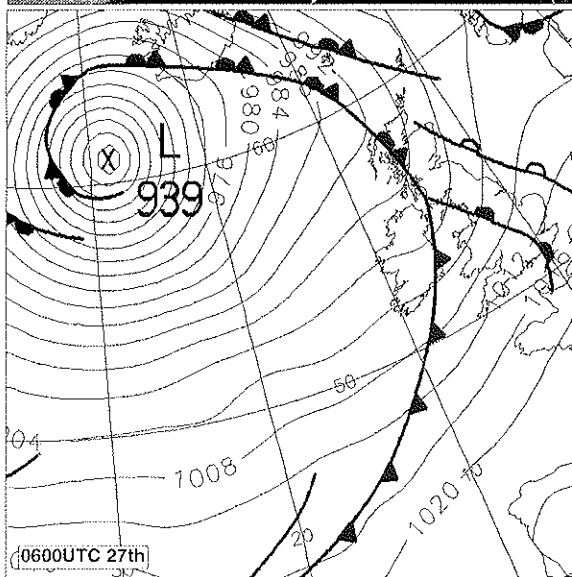
(pictures: Aidan Kelly)

heaviest falls this time over the south and southwest. Pressure subsequently rose over the country and between the 5th and 7th of the month there was a welcome spell of settled weather. Although not completely dry, rainfall amounts during this period were small with sunny weather on the 5th; daytime temperatures were near normal but nights were cold where skies were clear. A cool, showery day on the 8th was followed by more widespread heavy rain on the 9th as a depression moved slowly northeastwards

over Ireland. This depression became centred over Scotland between the 10th and 13th, leaving Ireland in a cold northwesterly airstream with showers or longer spells of rain each day. Late on the 13th and early 14th a frontal system brought a spell of rain to all areas, heaviest in the southwest, and introduced much milder southwesterly winds. More frontal rain fell on the 15th and 16th, but this was generally recorded after dark, while both days were relatively mild and sunny.



0600UTC 27th



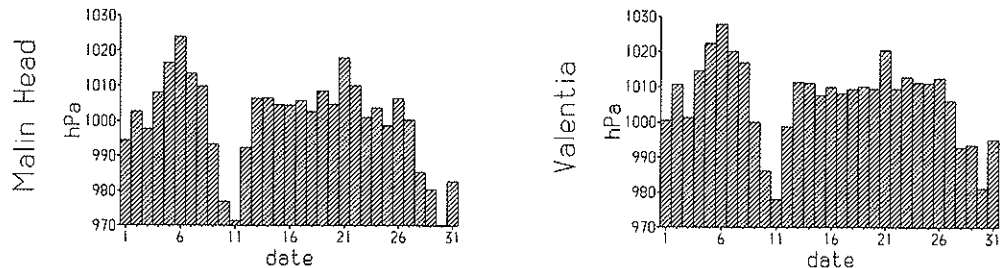
0600UTC 27th

Above
The infra-red satellite image (top) taken early on the 27th shows the extent of the frontal system associated with an exceptionally deep depression centred just west of Iceland.

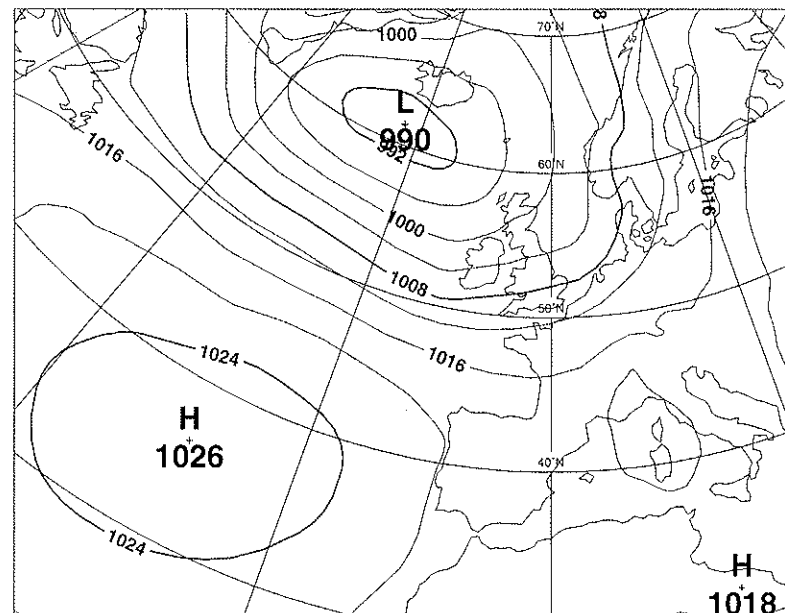
A deep depression near Iceland on the 17th spread heavy rain across Ireland during the day, accompanied by strong southerly winds. This rain was particularly heavy in the southwest, where falls of close to 100mm were measured in some upland areas. The 18th and most of the 19th were generally dry, sunny and breezy with just isolated

showers, but more rain spread into Munster late on the 19th and moved northeastwards to all areas during the 20th. A ridge of high pressure on the 21st brought a rare dry and sunny day, but more familiar rain and strong southerly winds returned on the 22nd ahead of an active occluded front, clearing to a showery westerly flow on the 23rd. During the last week of the month, the pattern of cyclonic activity intensified as some very deep depressions brought a combination of heavy rain and strong winds. Between the 24th and 29th an area of low pressure became almost stationary near Iceland, deepening to 939hPa on the 27th and influencing the weather over a huge area of the North Atlantic (see charts on left). Heavy rain or showers fell over Ireland on most days during this period, especially the 24th, 26th and between the 29th and 30th in the south. Rain on these latter days was associated with two depressions which deepened considerably near the south coast as they tracked eastwards late on the 29th and caused considerable damage over southern Britain. Showers continued in all areas on the 30th and 31st and temperatures fell as winds settled into a westerly direction.

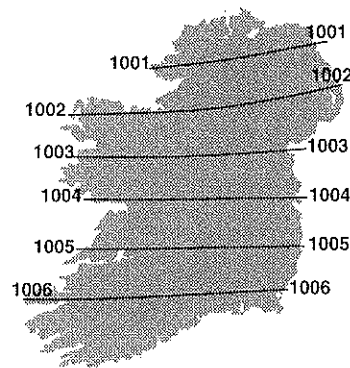
Mean windspeeds for the month were between 9 and 13 knots (10 and 15m.p.h.) at most stations, but ranged from 17 to 20 knots (20 and 23m.p.h.) at coastal stations in the north and northwest. They were above normal everywhere except in the extreme southeast and were the highest for October for between 16 and 20 years at northern stations. Strong winds were recorded throughout most of the month, particularly at the beginning and end. The highest gust, 68 knots (78m.p.h.), was measured at Malin Head on the 28th. Isolated hail showers were recorded, mainly in the periods 7th to 9th and 27th to 31st, while there was thunderstorm activity on the 2nd, 11th and 29th. Fog was fairly widespread in the periods 1st to 3rd, 14th to 17th and 25th to 29th.



Mean daily M.S.L. pressure (hPa)



the above map is based on means of 1200 UTC values



MEAN ATMOSPHERIC PRESSURE

Like September, mean sea level pressure values were well below normal for the month everywhere, by between 8hPa in the south of the country and 11hPa in the north. These were the lowest mean values for any month since February 1995. Some very low pressure values were recorded as a deep depression moved across the country on the 11th, while another passed close to the north coast on the 30th. Malin Head recorded the lowest pressure of the month, 966.1hPa on the 11th, the lowest October value at the station since 1986. The highest pressure of the month was measured at Cork Airport on the 6th, 1029.4hPa.

Wetter than normal almost everywhere; very wet in western half

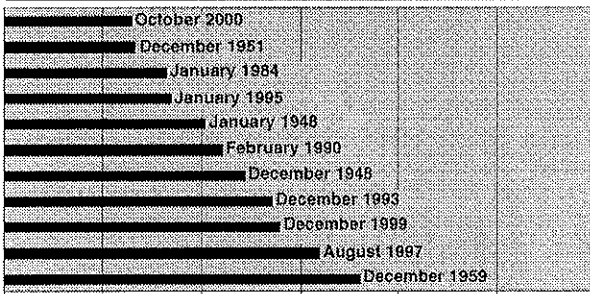
Rainfall totals for the month were above normal almost everywhere and were well above normal in the western half of the country. They ranged from 65mm at Dublin (Merrion Square) to 520mm at Maam Valley, Co. Galway, where it was the wettest October since records began in the area in 1968. Shannon Airport's total of 182mm was also its highest on record for October (see chart below).

Percentage of normal values were between 100% at Merrion Square and 196% at Shannon Airport.

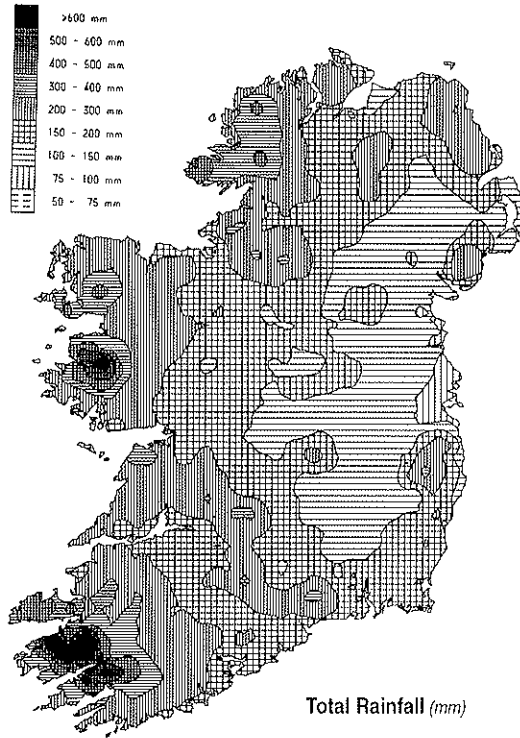
There were between 16 and 19 wetdays during the month (days with 1.0mm or more of rainfall) over eastern counties, but 24 or more such days over much of the southwest, west and north. This compares with the normal range for October of between 11 and 19 wetdays.

Although most days during October were wet, the heaviest rain fell at most stations towards the end of the month, especially in the period 22nd to 30th. Valentia Observatory measured falls of over 10mm on six days during this period, with over 25mm recorded on the 22nd, 26th and 29th. Some significantly higher falls were measured in mountainous areas of Cork and Kerry on both the 17th and 26th; the rainfall recording station at Gouganebarra, Co Cork, measured 95.8mm on the 17th.

Highest Monthly Totals at Shannon Airport (mm) (records since 1945)

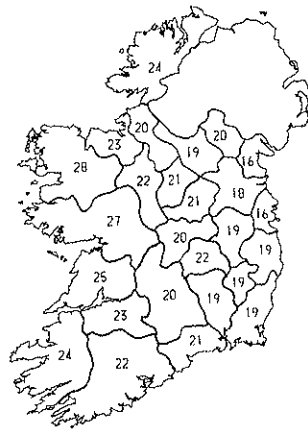


150 175 200 225 250



Total Rainfall (mm)

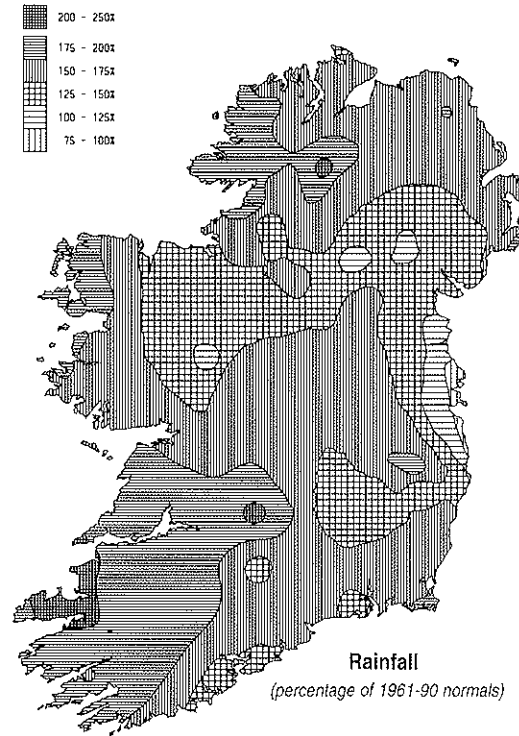
Below
The number of wetdays - days with 1mm or more rainfall - in each county



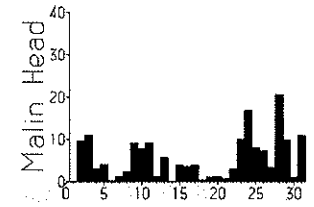
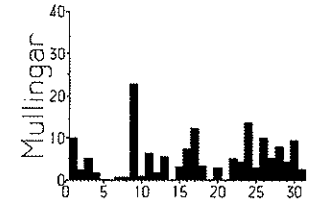
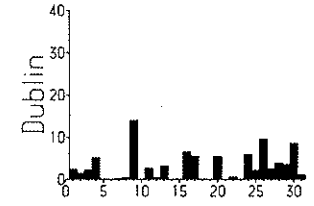
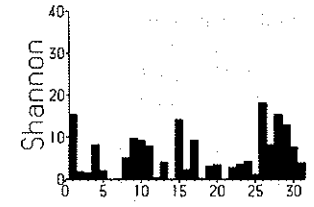
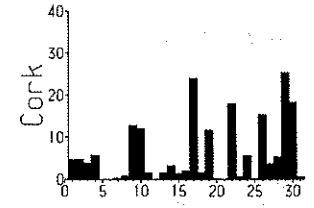
DAILY RAINFALL EXPRESSED AS % OF MONTHLY NORMAL

COUNTY	DAY																															TOTAL	
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Carlow	10	-	7	5	-	-	-	8	5	1	2	1	11	-	5	1	13	-	10	-	-	4	2	7	-	18	1	3	32	9	2	...	141
Cavan	11	4	5	2	-	-	1	13	7	3	4	2	6	-	9	3	12	3	5	-	7	3	12	3	13	2	12	6	6	5	...	159	
Clare	15	2	2	9	-	-	4	13	3	15	1	1	5	-	13	3	11	3	5	-	2	6	3	9	2	26	3	15	15	6	12	...	206
Cork	4	6	3	7	-	1	1	10	5	12	3	-	6	-	5	1	23	2	9	-	1	14	2	5	-	37	4	8	26	9	4	...	190
Donagel	8	11	7	8	1	1	2	9	11	7	6	2	4	-	4	3	9	2	3	2	2	11	9	21	4	9	3	21	7	6	8	...	202
Dublin	6	-	2	7	-	-	-	1	7	5	2	2	1	3	-	10	-	5	-	9	-	-	1	1	13	-	14	-	5	9	3	...	115
Galway	10	2	2	9	-	1	1	23	3	3	3	4	2	-	5	2	1	5	4	-	1	9	3	14	1	12	1	11	9	7	6	...	162
Kerry	5	7	5	9	-	1	2	9	6	6	10	1	7	-	6	2	2	7	-	6	12	2	8	1	26	3	10	20	11	5	...	213	
Kildare	9	1	4	6	-	-	1	12	3	3	12	2	5	-	17	-	11	-	3	-	-	4	-	15	1	19	1	5	12	9	5	...	160
Kilkenny	11	-	2	5	-	-	1	14	-	2	5	1	7	-	9	1	14	-	7	-	-	4	3	7	-	16	2	6	32	8	7	...	144
Leath	15	2	5	7	-	-	1	11	1	3	7	3	5	-	8	2	12	-	4	-	-	5	3	13	1	17	1	9	14	7	6	...	154
Leitrim	14	3	5	4	-	-	-	6	4	2	2	4	-	6	2	10	-	2	1	-	9	5	15	1	13	1	23	3	11	13	...	163	
Limerick	15	1	3	11	-	-	1	12	2	11	3	-	1	5	5	-	12	-	8	-	-	4	2	6	2	25	1	17	15	10	...	193	
Longford	10	3	5	2	-	-	-	10	5	1	7	2	5	-	11	2	14	-	2	1	6	1	13	17	-	9	6	6	1	5	...	164	
Louth	7	2	6	2	-	-	-	1	20	2	-	-	6	-	12	1	14	-	6	-	4	1	11	-	16	-	6	1	3	2	...	125	
Mayo	10	11	10	4	-	1	3	12	2	9	5	1	5	-	6	2	13	6	7	2	3	11	6	18	2	16	2	12	6	9	6	...	198
Meath	9	1	5	4	1	-	1	18	7	1	4	-	6	-	10	-	10	-	5	-	-	4	15	1	15	3	4	2	7	2	...	134	
Monaghan	8	2	4	7	1	-	-	7	5	1	4	-	6	-	10	1	12	1	6	-	-	5	3	10	1	15	-	11	1	5	6	...	132
Offaly	13	1	5	4	-	-	1	17	1	2	5	1	5	-	10	-	11	1	5	-	6	2	16	1	20	2	11	21	9	6	...	166	
Roscommon	14	3	3	4	-	-	1	14	6	4	4	3	4	-	6	-	12	3	3	-	8	3	13	1	16	-	22	4	7	4	...	162	
Sligo	9	4	7	4	-	-	2	7	5	3	2	4	-	7	1	14	2	2	1	-	9	4	10	1	11	1	12	4	8	5	...	144	
Tipperary	13	1	6	6	-	-	1	12	1	12	3	2	4	-	6	3	19	2	8	1	-	9	2	9	1	19	3	12	18	9	...	150	
Waterford	9	4	4	7	-	-	-	14	1	12	3	-	3	-	8	-	19	1	3	-	-	12	1	2	-	22	3	5	25	4	...	165	
Westonach	11	1	5	4	-	-	1	20	3	3	5	1	5	-	12	-	11	1	2	-	-	9	2	17	1	15	1	18	6	7	5	...	166
Wexford	9	4	2	8	-	-	-	15	1	13	2	-	8	-	5	-	20	-	7	-	-	10	-	6	-	22	4	2	34	3	...	176	
Wicklow	15	2	7	6	-	-	-	7	5	4	1	5	-	5	-	18	-	9	-	-	8	1	10	-	15	2	6	6	7	1	...	149	
MEAN	10	3	5	6	-	-	1	13	4	5	4	1	5	-	8	2	13	2	5	-	1	7	2	11	2	16	2	11	17	7	...	163	

NOTE: In the above table, each value represents the percentage of the monthly normal that fell on each day. Stations within each county are averaged together. For example, 10% of the average monthly rainfall in Co. Carlow fell on the 1st.



Rainfall (percentage of 1961-90 normals)



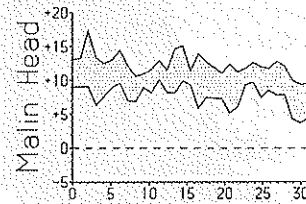
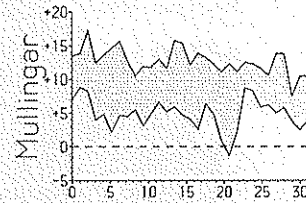
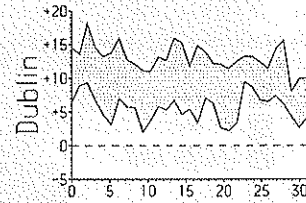
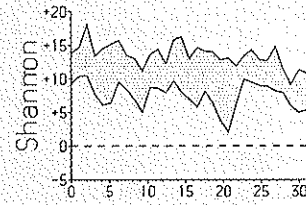
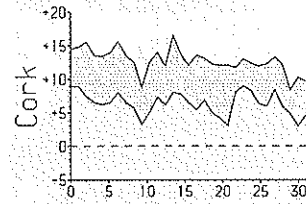
Daily rainfall amounts (hours)

TEMPERATURE

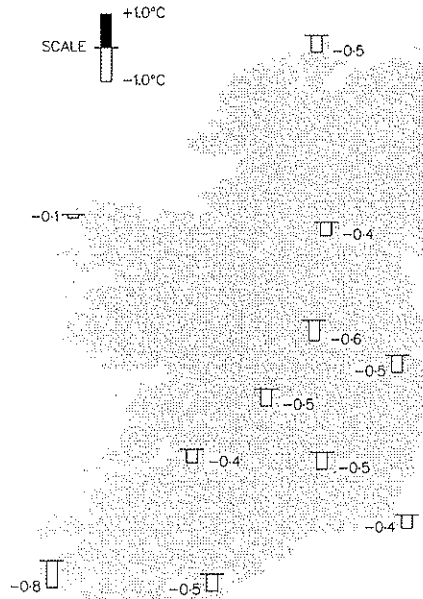
Cooler than normal everywhere

Mean air temperatures for the month ranged from 8.6°C at Connaught Airport to 11.2°C at Sherkin Island, Co. Cork, around half a degree below normal generally. It was the first time since 1993 that October was cooler than normal. Mean minima were over a degree below normal at several stations, reflecting the number of cold nights around the middle of the month in particular; ground frost was measured inland on most nights between the 4th and 22nd.

Fermoy (Moorepark), Co. Cork, measured the lowest air temperature of the month, -1.6°C on the 21st, its lowest October temperature since 1994, while the lowest grass minimum temperature, -6.6°C, was recorded at Kilkenny on the same day. The warmest day of the month at almost every station was the 3rd, when, although conditions were generally cloudy, air of tropical origin raised the temperature above 15°C everywhere and to 19.4°C at Ardee (Boharnamoe), Co. Louth, the highest value of the month.



Daily maximum and minimum temperatures (°C)



Mean Temperature
(difference from 1961-90 normals)

SUNSHINE

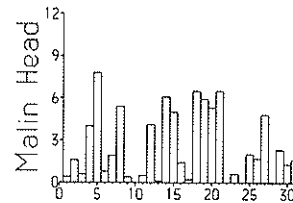
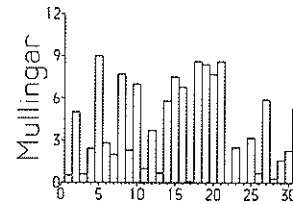
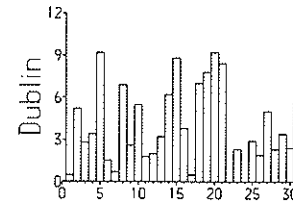
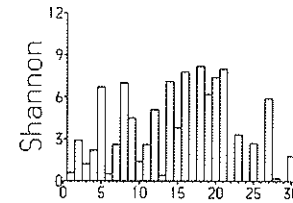
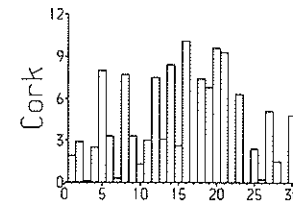
Sunnier than normal everywhere, especially in south and southeast

Sunshine totals for the month ranged from 79 hours at Malin Head to 136 hours at Rosslare, with percentage of normal values between 104% at both Malin and Valentia Observatory and 142% at both Mullingar and Kilkenny. It was the sunniest October at most stations for 5 or 6 years and the sunniest in the south and southeast for between 34 and 41 years. Totals in some cases were higher than those normally expected for September. This is in spite of

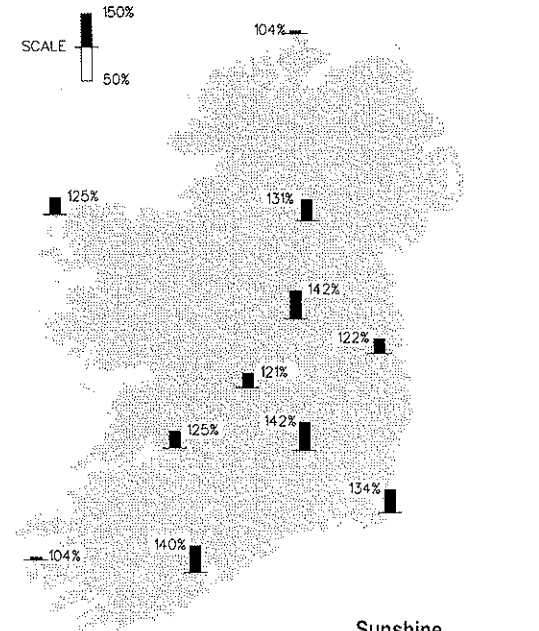
the rain which fell on most days during the month, as much of the sunshine recorded was between showers.

Sunshine was distributed fairly evenly across the month, but the 5th and the periods 14th to 16th and 18th to 21st were particularly sunny. Rosslare measured the highest daily sunshine, 10.2 hours on the 5th, while Cork Airport's value of 10.1 hours on the 16th was its highest October value since records began there in 1962.

Values of global solar radiation were close to normal generally, ranging from 92% of normal at Valentia Observatory to 113% at Dublin Airport.



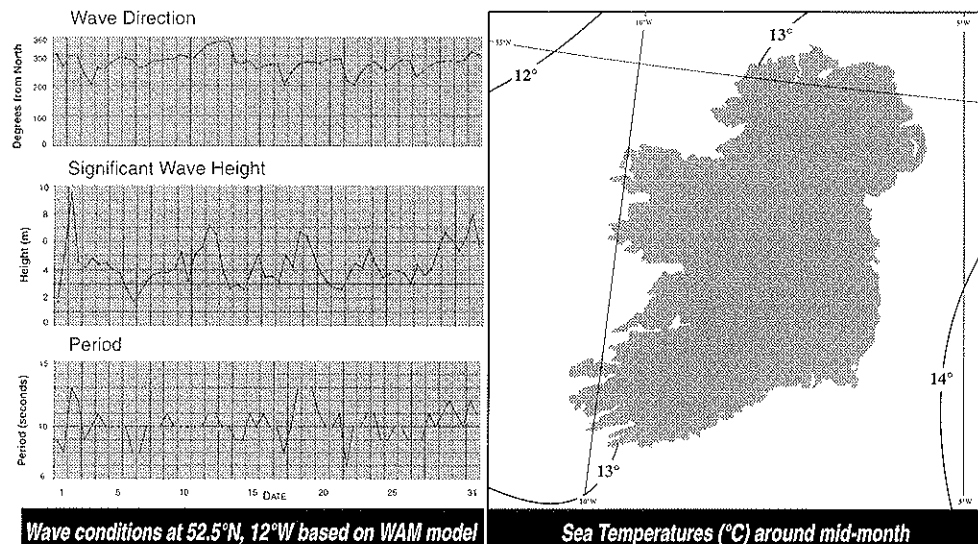
Daily sunshine amounts (hours)



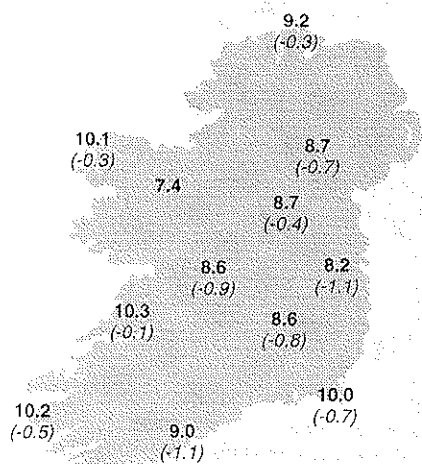
Sunshine
(percentage of 1961-90 normals)

SEA TEMPERATURES

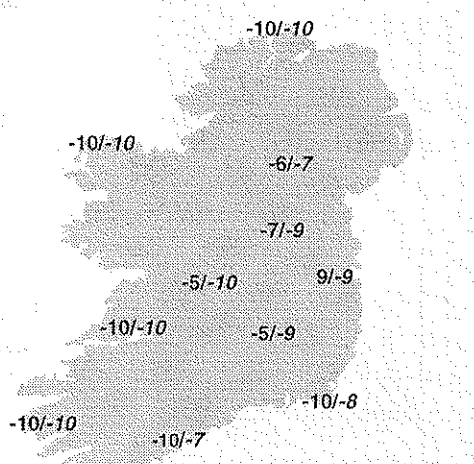
Sea temperatures fell by three degrees during October, but were still around half a degree above normal by the end of the month. They ranged from a little below 13°C off the west and northwest coasts to around 14°C in the Irish Sea at mid-month. At Malin Head the mean sea temperature for the month was 13.1°C, half a degree above the October normal.



Mean 10cm Soil Temperatures (°C) at 0900Z (difference from 1961-90 normals in brackets)



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



10-DAY VALUES FOR SELECTED AGROMETEOROLOGICAL STATIONS		RAINFALL		TEMPERATURE										SUNSHINE									
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 > 4.0°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 (mi/hr) (84)	P.E. (Penman) (mm)
Co. Cork Fermoy	1-10	39.8	-	8	7	14.3	6.2	10.3	-	2.0	6	0	60	16	-0.9	6	2	10.8	12.5	-	-	3.8	-
	11-20	46.5	-	7	4	13.7	5.1	9.4	-	1.8	17	0	51	11	-1.3	17	3	9.3	10.9	-	-	2.5	-
	21-end month	70.4 156.7	- 170	9 24	8 19	12.4 13.4	5.2 5.5	8.8 9.5	-0.9	-1.6	21	1	51 162	35	-4.7	21	7	8.8 9.6	10.0 11.1	-	-	4.2 3.5	-
Co. Donegal Letterkenny	1-10	50.8	-	10	10	14.1	6.6	10.4	-	2.6	6	0	60	15	-	-	-	-	-	-	-	-	-
	11-20	28.6	-	10	6	13.3	6.0	9.7	-	4.6	17	0	53	9	-	-	-	-	-	-	-	-	-
	21-end month	114.5 193.9	- 154	10 30	9 25	11.7 13.0	5.7 6.1	8.7 9.6	-0.3	1.4	22	0	49 161	30	-	-	-	-	-	-	-	-	-
Co. Kerry Ardfert	1-10	51.0	-	9	8	14.3	7.8	11.1	-	5.1	6	0	67	17	2.0	6	0	-	-	27.8	-	-	-
	11-20	39.0	-	9	6	13.4	6.7	10.1	-	3.5	11	0	57	11	1.9	17	0	-	-	50.0	-	-	-
	21-end month	100.0 190.0	- 28	10 21	7	11.9 12.5	6.9 7.2	9.4 10.2	-	2.7	21	0	56 179	36	-0.6	21	1	-	-	104.2	-	-	-
Co. Leitrim Ballinamore	1-10	52.1	-	9	7	13.4	5.9	9.7	-	2.5	8	0	53	13	0.0	6	0	10.4	12.4	31.9	-	2.9	-
	11-20	35.1	-	9	5	13.1	5.5	9.3	-	2.5	17	0	50	8	0.0	15	0	9.0	10.9	40.9	-	2.7	-
	21-end month	107.9 195.1	- 160	11 20	8	11.2 12.5	4.7 5.3	8.0 8.9	-0.8	-0.2	21	1	42 145	25	-1.5	21	3	8.1 9.1	9.9 11.0	25.1 97.9	-	3.1 127	-
Co. Louth Ardee	1-10	34.5	-	8	5	14.6	6.3	10.5	-	3.0	6	0	61	17	-3.7	6	4	11.4	12.9	-	-	-	-
	11-20	31.8	-	8	4	14.5	6.1	10.3	-	3.0	17	0	59	15	-4.4	11	4	9.7	11.0	-	-	-	-
	21-end month	36.3 102.6	- 127	10 26	15	12.8 13.9	5.1 5.8	9.0 9.9	-0.1	0.6	21	0	53 173	41	-5.9	21	12	8.4 9.8	9.9 11.2	-	-	-	-
Co. Waterford Dungarvan	1-10	63.3	-	7	7	15.1	6.9	11.0	-	3.0	6	0	66	20	2.1	6	0	-	12.7	36.2	-	2.2	-
	11-20	48.6	-	7	6	14.4	5.8	10.1	-	1.6	17	0	59	16	1.0	19	0	-	11.2	55.1	-	2.1	-
	21-end month	91.8 203.7	- 24	10 23	13	13.0 14.1	6.2 6.3	9.6 10.2	-0.7	0.8	21	0	58 183	47	0.0	21	0	-	10.4 11.4	32.7 124.0	-	-	3.4 117
Co. Wexford Johnstown Castle	1-10	55.7	-	6	6	15.4	6.5	11.0	-	3.1	6	0	66	20	0.7	6	0	10.6	12.0	32.1	-	1.4	-
	11-20	40.5	-	8	4	14.5	6.6	10.6	-	3.5	17	0	62	15	0.4	17	0	9.2	10.7	52.5	-	1.1	-
	21-end month	85.5 181.7	- 168	9 23	18	13.0 14.3	6.1 6.4	9.6 10.4	-0.4	1.4	30	0	57 185	47	0.2	22	0	8.6 9.4	10.0 10.9	27.1 111.7	-	1.8 117	-

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

County/Station	Period	P.E. (mm)		Soil Moisture (mm)	
		Amount	Deficit	Accumulated Deficit	Surplus
Co. Dublin Kinscally	1-10	7.2	-	0	13
	11-20	5.9	-	0	18
	21-end month	5.6 17.7	-	0	29
Co. Kerry Valentia Obs.	1-10	18.3	-	0	22
	11-20	8.8	-	0	24
	21-end month	15.3 42.4	-	0	61
Co. Leitrim Ballinamore	1-10	9.5	-	0	43
	11-20	6.9	-	0	28
	21-end month	-	not available	-	-
Co. Wexford Johnstown Castle	1-10	23.0	-	48	3
	11-20	7.7	-	32	16
	21-end month	20.9 51.6	-	0	59

SEE BACK PAGE FOR NOTES ON THE DATA

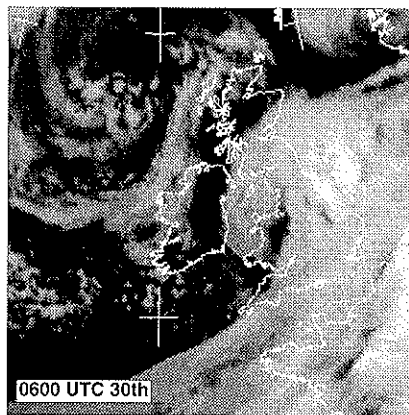
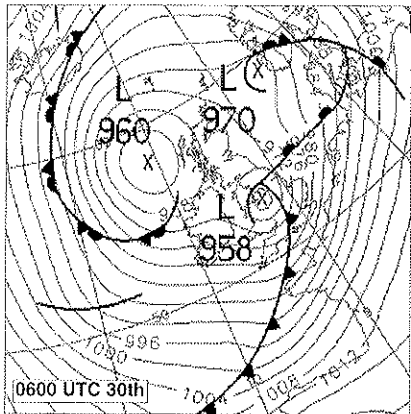
County/Station	GLOBAL SOLAR RADIATION (MJ/sq. m.)			P.E. (Penman) (mm)
	10-day totals	total for month	total for month (mm)	
Co. Donegal Malin Head	54.43	56.01	n/a	39
Co. Dublin Dublin Airport	74.02	71.31	51.95	197.28
Co. Kerry Valentia Obs.	61.77	58.67	45.70	166.14
Co. Kilkenny Kilkenny	n/a	n/a	47.03	n/a
Co. Mayo Belmullet	121.58	89.43	87.62	298.63
Co. Monaghan Clones	60.77	59.71	41.81	162.29
Co. Offaly Birr	66.48	n/a	45.78	n/a

Stormy end to the month over northwest Europe

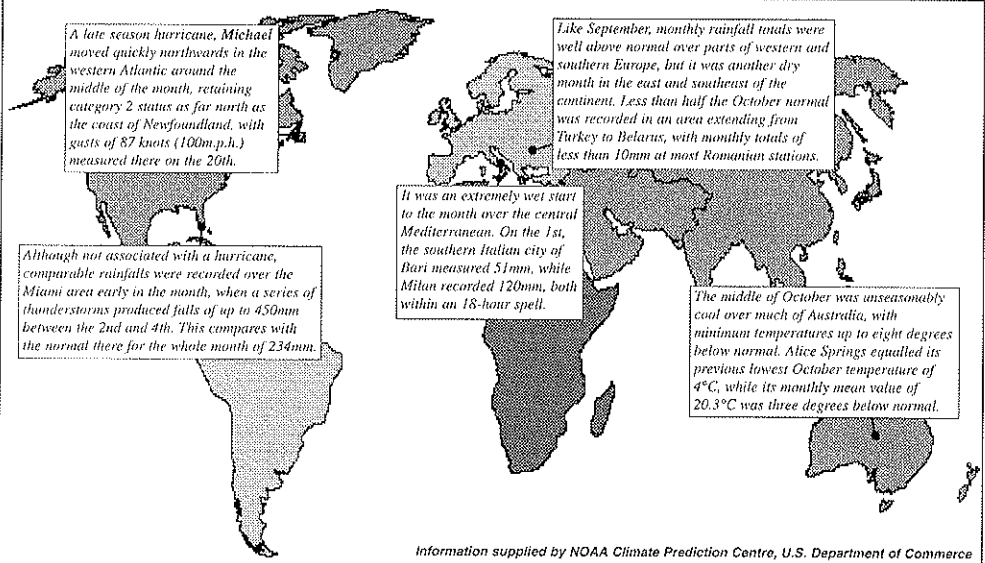
After a wet and windy October over much of England, the Low Countries and northwestern France, a severe storm affected much of the area during the 29th and 30th. The complex storm system, with central pressure as low as 958hPa early on the 30th (see charts below) tracked over Wales and central England, bringing some torrential rain, with snow on its northern edge and storm force winds south of the low centre.

In the 24 hours up to 0900 UTC on the 30th, over 50mm of rain fell over parts of Wales and the south and southwest of England; there was severe flooding along several rivers in the area, already swollen from earlier heavy rain during the month. Damage was also caused by winds gusting as high as 84 knots (97 m.p.h.), while a tornado caused considerable damage at Selsey on the English south coast, the second tornado to hit the area in the same month. Gusts of over 60 knots (69m.p.h.) were measured at coastal stations in western France, with 95 knots (109 m.p.h.) measured in a gust at Brest early on the 30th. Falls of over 20mm in a 6-hour spell were recorded over much of northern and western France at the same time. Rainfall totals for the month were over twice the October normal in most parts of England, while parts of the southeast had up to 350% of normal; such a wet October would be expected here once every 200 years.

(data from UK Met Office and Météo France)



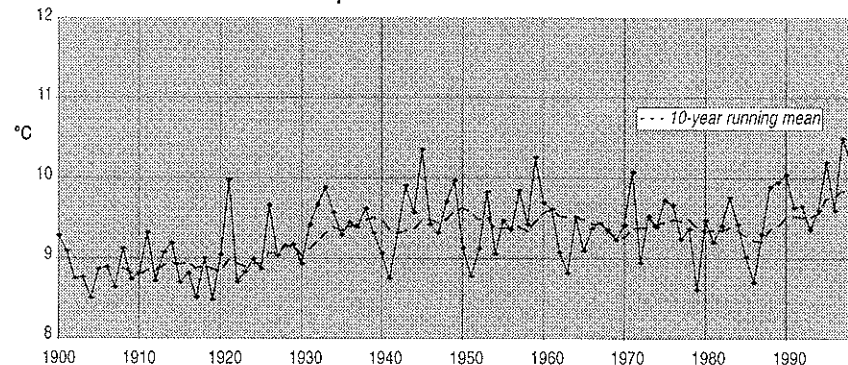
SUMMARY OF SIGNIFICANT WEATHER WORLDWIDE DURING OCTOBER



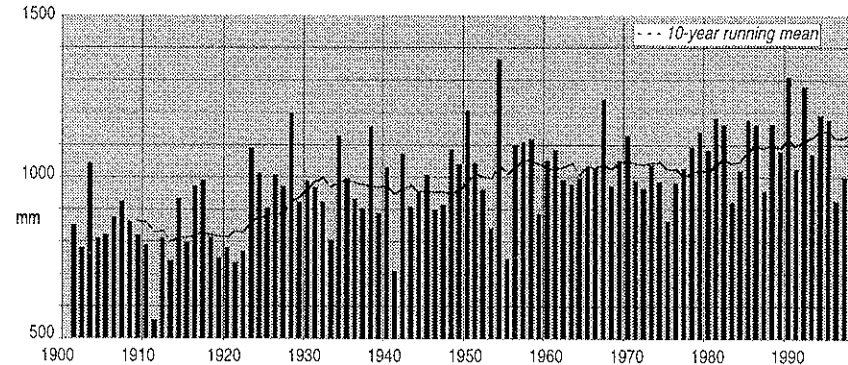
Information supplied by NOAA Climate Prediction Centre, U.S. Department of Commerce

20th Century annual means of rainfall, temperature & sunshine at Malin Head

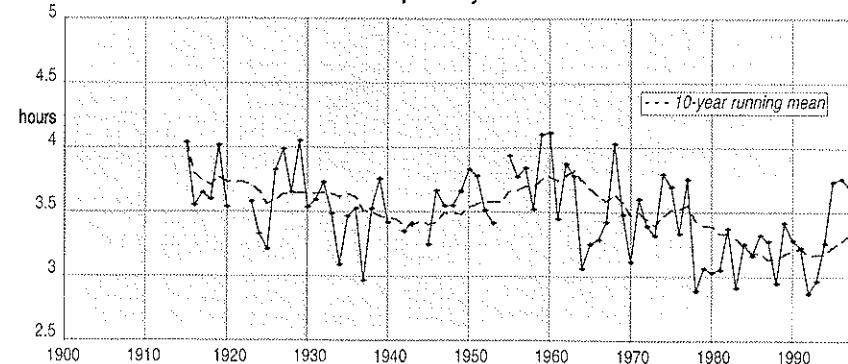
Mean Annual Temperature



Annual Rainfall Totals



Mean Annual Sunshine per day



Sunday 1st: A depression to the west of Ireland passed close to the northwest of the country during the day. An associated frontal trough near the west coast moved across the country during the afternoon and evening. Winds started light, mainly southeasterly but gradually strengthened during the day and veered to southwesterly. Mist and fog in places at first. Rain along the west coast gradually became widespread for a time in all areas. Showers with bright spells followed in a strong and gusty southwesterly wind.

Rainfall: trace to 5mm in the north, east and Cork Airport, 8 to 15mm elsewhere
Temperature: max. 12°C to 15°C, min. 6°C to 10°C
Sunshine: trace to 2 hours

Monday 2nd: The strong west to northwesterly airflow over Ireland moderated as a ridge of high pressure extended over the country. A warm front approached from the southwest in the evening with a strong south to southwesterly airflow. Rain along the east coast persisted for a time during the morning. Showery conditions in the west were followed by a rain belt later in the day which became widespread. Strong and gusty mainly westerly winds.

Rainfall: trace to 2mm generally, 5 to 13mm in the west

Temperature: max. 12°C to 16°C, min. 8°C to 10°C

Sunshine: 1 to 5 hours

Tuesday 3rd: Frontal systems and an associated depression affected the country giving a mild but very windy damp day in all areas. The warm front moved eastward over the country in the early hours of the day giving outbreaks of rain and drizzle in many areas with mist or fog in places as well. Further outbreaks of rain and drizzle in the southwest and west during the morning as the cold front moved in over the country and the depression approached the southwest coast. The depression tracked northeastward over the country during the afternoon and early evening with further rain or drizzle in most areas, dying out in almost all areas late in the day. Fresh southerly winds with strong gale gusts veered westerly in the late afternoon and evening increasing strong or near gale for a short time and very gusty but falling moderate in most places by end of day.

Rainfall: 2 to 5mm generally, 7 to 11mm in the west, 21mm in Belmullet

Temperature: max. 16°C to 18°C, min. 7°C to 11°C

Sunshine: nil to 4 hours

Wednesday 4th: A cold front crossed the country during the day. It was largely dry overnight with just the odd shower in the west and north. Dry and bright in eastern areas at first but cloudier in the west with the frontal rain reaching the Connaught coast near daybreak and spreading eastwards through the morning and afternoon with the front clearing the extreme southeast in the evening. The clearance to good bright or sunny spells and scattered showers reached the west in the late morning and had spread to all but east and southeastern areas by late afternoon. Winds were generally between south and west in direction and mostly light to moderate, but moderate to fresh and gusty in west and north.

Rainfall: 2 to 8mm generally, 13 to 16mm in the extreme south

Temperature: max. 12°C to 16°C, min. 4°C to 9°C; ground temperatures down to -1°C in the midlands

Sunshine: 1 to 6 hours

Thursday 5th: A low moving to the north of Ireland into Scotland maintained a west to northwesterly airflow over the country. By dawn these showers became mainly confined to western Atlantic coasts and it was a bright sunny start to the day for the rest of the country. As the day ended a ridge approached from the west and the showers died out everywhere and it was a cool, dry evening everywhere.

Rainfall: nil to 4mm

Temperature: max. 12°C to 15°C, min. 3°C to 6°C inland, up to 8°C coastal; ground

temperatures down to -3°C in Kilkenny

Sunshine: 7 to 10 hours

Friday 6th: The ridge of high pressure moved eastward across Ireland, followed later in the day by a weak warm front. Cold and clear overnight away from Atlantic coasts. Cloudy and mostly dry for the rest of the day with just the odd spot of light rain or drizzle and mist developing in places in the afternoon and evening. Remaining mild after dark. Winds generally were light (moderate on northwest coasts) and south to southwesterly in direction.

Rainfall: nil or trace

Temperature: max. 13°C to 15°C, min. 2°C to 7°C inland, up to 9°C coastal; ground

temperatures down to -3°C in Kilkenny

Sunshine: nil to 5 hours

Saturday 7th: A cold front crossed the country during the day. Mild and misty overnight with some spots of light rain or drizzle, mainly on Atlantic coasts. Damp, cloudy conditions pushed eastward across the country during the day and a clearance to brighter weather followed into western areas around midday. Cool after dark with showers (some of hail) on west and northwest coasts. Light to moderate southwesterly winds veered northwesterly behind the front and became fresh to strong and gusty for a time. Winds remained strong and gusty on northwestern coasts for the rest of the day but calmed off elsewhere in the afternoon and evening.

Rainfall: nil to 4mm

Temperature: max. 14°C to 17°C, min. 5°C to 10°C; ground temperatures down to -1°C

in Mullingar

Sunshine: trace to 3 hours generally, 4 to 6 hours in the northwest

Sunday 8th: Ireland lay in a cool southwesterly airflow. Cool overnight with scattered showers, mainly in Atlantic coastal regions which continued through the day with some heavy and of hail.

The showers eased off in the evening and more organized rain moved into the southwest in the late evening. Southwesterly winds were moderate to fresh and gusty during the day (fresh to strong and gusty on western and northwestern coasts) and eased off again during the evening.

Rainfall: nil to 2mm generally, 4 to 7mm in the west

Temperature: max. 12°C to 15°C, min. 4°C to 9°C; ground temperatures down to -2°C in Kilkenny

Sunshine: 5 to 8 hours

Monday 9th: An extensive depression approached from the west and moved east-northeastward across the country during the period. Its associated frontal troughs brought rain, persistent and heavy at times which gave way to showers eventually. Winds initially light but becoming northwesterly from early morning and becoming quite strong, particularly in the northwest, with stronger gusts.

Rainfall: 6mm at Casement Aerodrome, 9 to 15mm otherwise, 21 to 23mm in the west

midlands

Temperature: max. 8°C to 14°C, min. 5°C to 8°C

Sunshine: trace to 5 hours

Tuesday 10th: Areas of low pressure passed over or close to Ireland during the period. Rain or showers in all areas, some heavy and persistent at times. Winds northwesterly fresh to strong at times with stronger gusts.

Rainfall: nil to 4mm in the midlands and east, 4 to 9mm in the west, 12 to 16mm in the

southeast

Temperature: max. 9°C to 12°C, min. 2°C to 5°C inland, up to 9°C coastal; ground

temperatures down to -4°C in Mullingar

Sunshine: nil to 1 hour in the west, 4 to 7 hours elsewhere

Wednesday 11th: The cool, broken, showery weather continued as a complex area of low pressure persisted over the country. The low centre over the northeast pushed southward along the Irish Sea during the day. Showers were widespread, some of them heavy but there were also a few bright spells. Winds were strong in the west and north but slackier further east.

Rainfall: 1 to 3mm in the east and southeast, 5 to 11mm elsewhere

Temperature: max. 11°C to 14°C, min. 4°C to 9°C

Sunshine: 1 to 5 hours

Thursday 12th: An unstable north to northwesterly airflow became established over Ireland as the low centre pushed into the North Sea. There were scattered showers throughout the day. Shower activity decreased after dark and the winds slackened.

Rainfall: nil to 3mm generally, 5 to 7mm in the extreme west

Temperature: max. 11°C to 14°C, min. 5°C to 10°C

Sunshine: 1 to 2 hours in the east, 3 to 6 hours elsewhere

Friday 13th: The northwesterly airflow continued to slacken as a weak ridge crossed the country in the forenoon. Apart from some sunny spells in the east and south, early on, the day was generally cloudy. Outbreaks of rain, associated with a frontal trough, spread into western areas early in the afternoon, as winds backed southerly and rain spread to all areas during the evening. A clearance followed late in the evening to western parts, with winds veering southwest to westerly.

Rainfall: 1 to 4mm in the east and southeast, 5 to 7mm elsewhere, 15mm in Valentia

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

in the midlands

Sunshine: nil to 5 hours

Saturday 14th: A southwesterly airflow covered the area as a frontal wave to the southeast moved away to the east. A cold front approached from the Atlantic later. Rain overnight cleared to give well scattered showers. Some fog and mist in midland areas for a time. A moderate southerly wind.

Rainfall: nil to 5mm

Temperature: max. 13°C to 18°C, min. 4°C to 11°C; ground temperatures down to -1°C

in the east and midlands

Sunshine: 4 to 8 hours

Sunday 15th: A cold front approached and moved in over the country during the day. Cold overnight in eastern areas, elsewhere cloudier with mist or fog in places and the odd spot of drizzle. Dry throughout the day in the eastern half of the country. Rain reached the extreme west around midday and moved very very slowly across the country during the afternoon and evening but with the extreme east still dry by day's end. Winds generally light to moderate southerly increased moderate to fresh and gusty in advance of the front and slackened again during the evening.

Rainfall: nil to 5mm, 14mm at Shannon Airport

Temperature: max. 12°C to 16°C, min. 2°C to 8°C inland, up to 11°C coastal; ground

temperatures down to -2°C in Kilkenny

Sunshine: trace to 4mm in the west and south, 5 to 9 elsewhere

Monday 16th: A cold front continued its slow track eastward over the remaining half of the country overnight with outbreaks of rain and drizzle in most areas and mist and fog patches in places; more persistent in eastern counties around daybreak. A clearance from the west spread countywide quickly during the remainder of the morning giving scattered showers, with the showers dying out in most places during the evening. Winds generally light southerly to begin became light to moderate westerly during the morning and gusty during the afternoon before

falling mostly light southwesterly during the evening.

Rainfall: 2 to 4mm generally, 7 to 9mm in the east

Temperature: max. 10°C to 13°C, min. 4°C to 7°C inland, up to 9°C coastal; ground

temperatures down to -3°C in Kilkenny

Sunshine: 1 to 4 hours in the east and north, 6 to 10 hours elsewhere

Tuesday 17th: A ridge passed over the country followed by a cold front which finally moved into the Irish Sea by the end of the day. The early hours of the morning were cool and clear but increasing cloud in the west brought outbreaks of rain to Atlantic coasts by dawn. This rain, heavy in places, spread quickly eastward all areas by noon. A clearance reached the west by early evening and spread to the east coast by the end of day.

Rainfall: 4 to 6mm in the east and Malin Head, 8 to 16mm elsewhere, 24 to 33mm in the southwest

Temperature: max. 13°C to 15°C, min. zero to 6°C inland, up to 9°C coastal; ground

temperatures down to -5°C in Kilkenny

Sunshine: nil to 1 hour

Wednesday 18th: A deep depression near Iceland developed a fresh to strong, unstable south to southwesterly airflow over Ireland. Some thundery showers and the west coast in a moderate to fresh and gusty southwesterly wind, light to moderate farther east. A mainly dry bright day elsewhere with good sunshine.

Rainfall: nil to 4mm

Temperature: max. 11°C to 15°C, min. 3°C to 9°C; ground temperatures down to -3°C in

Kilkenny

Sunshine: 6 to 9 hours

Thursday 19th: A depression to the southwest moved closer to the country during the day reaching the southwest coast by late evening. Mild with scattered showers in Atlantic coastal areas overnight. A bright sunny day generally with mostly scattered light showers. Cloudy, wet conditions pushed in over the southwest during the evening with heavy rain and thunder in places. Winds started off light to moderate southwesterly (fresh to strong and gusty on northwestern coasts). During the afternoon the winds eased and backed southeasterly and later became light to moderate generally but strong to gale force and gusty on southern coasts.

Rainfall: nil to 3mm generally, 6mm in Belmullet, 12 to 13mm in the southwest

Temperature: max. 10°C to 14°C, min. 1°C to 6°C inland, up to 8°C coastal; ground

temperatures down to -5°C in Kilkenny

Sunshine: 4 to 8 hours

Friday 20th: A depression just off the Kerry coast moved slowly northward and was followed by a ridge of high pressure. Mild, very wet and windy weather pushed northward over the country during the night. The rain was slow to clear the west coast but the clearance to drier, brighter weather with just scattered showers had spread from the south to most areas by around midday. Remaining mild after dark on northwest coasts. Mainly southerly winds were strong to gale force and gusty at first (up to strong gale force on northwestern Atlantic coasts). Winds remained strong and gusty in the extreme north for most of the day but elsewhere they gradually eased with the clearance and were light and variable by evening.

Rainfall: trace to 6mm generally, 11mm in Belmullet

Temperature: max. 10°C to 13°C, min. 1°C to 4°C inland, up to 8°C coastal; ground

temperatures down to -4°C in the midlands

Sunshine: 2 hours in Belmullet, 5 to 10 hours elsewhere

Saturday 21st: A ridge of high pressure extended over the country during the period. A dry night in most places except for the odd shower in northwest areas, some mist or fog also. The odd shower during the late evening in the southwest. Winds, variable light during the night becoming south to southwesterly during the day and remaining light. Frost early and late.

Rainfall: nil to 1mm

Temperature: max. 11°C to 14°C, min. -1°C to 3°C inland, up to 7°C coastal; ground

temperatures down to -7°C in Kilkenny

Sunshine: 7 to 9 hours

Sunday 22nd: A southerly airflow over the country. A frontal trough approached the country from the west and reached the west coast during the early morning quickly spread east to reach all parts by afternoon. Rain heavy and persistent particularly in the west and south spread to all areas, with strong to gale force and gusty southerly winds. The rain cleared the country by late evening with showers following. Winds veered more westerly. Some mist and fog by the evening.

Rainfall: 1 to 6mm generally, 9 to 18mm in the extreme west and south, 33mm in

Valentia

Temperature: max. 10°C to 13°C, min. zero to 9°C; ground temperatures down to -6°C in

Kilkenny

Sunshine: nil or trace

Monday 23rd: A fresh to strong unstable southwesterly airflow over Ireland veered westerly during the day. The day was blustery and showery in many parts, with the showers heaviest and most frequent in the west and north of the country.

Rainfall: nil to 5mm generally, 9 to 14mm in the northwest

Temperature: max. 10°C to 15°C, min. 8°C to 10°C

Sunshine: 1 to 4 hours generally, 6 to 7 hours in the extreme south

Tuesday 24th: After a mainly dry but overcast night, outbreaks of rain, associated with approaching frontal troughs, affected western areas shortly after dawn and quickly spread eastward. It was a wet day throughout the country, especially in the west and north, particularly during the evening. Light southwesterly or variable winds later freshened and were strong southwesterly at times with gale gusts.

Rainfall: 4 to 7mm generally, 12 to 26mm in the west

Temperature: max. 12°C to 14°C, min. 8°C to 10°C

Sunshine: nil

Wednesday 25th: A strong northwesterly airflow covering Ireland began to moderate and stabilise. Widespread rain persisted for a number of hours. Mainly dry and bright apart from a few showers for the remainder of the day. Fresh to strong and gusty mainly southwesterly winds.

Rainfall: 1 to 3mm generally, 5 to 9mm in the northwest

Temperature: max. 10°C to 14°C, min. 6°C to 10°C

Sunshine: 2 to 5 hours

Thursday 26th: Scattered overnight showers largely died out during the forenoon as a weak ridge of high pressure moved eastward. There were a few sunny spells in the east and north. Early in the afternoon frontal rain moved into western areas and spread to remaining parts during the evening. The evening remained wet countrywide, with some heavy outbreaks of rain, as winds freshened from the south.

Rainfall: 6 to 11mm generally, 15 to 18mm in the extreme west and south, 36mm in

Valentia

Temperature: max. 11°C to 14°C, min. 5°C to 9°C

Sunshine: nil to 3 hours

Friday 27th: The overnight rain had moved into the Irish Sea by daybreak with a light to moderate west-southwesterly airflow following. The day brightened up everywhere with just a few scattered showers. After dark the winds backed southerly and the showers became confined to the northwest of the country.

Rainfall: 2 to 6mm generally, 8 to 9mm in the west

Temperature: max. 12°C to 15°C, min. 5°C to 9°C inland, up to 11°C coastal; ground

temperatures down to -1°C in the midlands

Sunshine: 4 to 7 hours

Saturday 28th: It remained mostly dry overnight in a light to moderate southerly airflow. Rain, associated with frontal troughs, spread into the west around dawn and very quickly moved northeastward, as winds backed southeasterly and strengthened. The parent storm depression continued to deepen as it approached the Mayo coastline at noon, tracking northeastward. The rain, sometimes heavy, continued through the afternoon and evening, with hail in places. Winds became strong to gale force southwest-westerly, with some severe gusts. Later in the evening the rain became more showery and winds slackened in the southern half of the country.

Rainfall: 4 to 8mm generally, 10 to 15mm in the west, 21mm in Malin Head

Temperature: max. 10°C to 16°C, min. 5°C to 8°C; ground temperatures down to -1°C in

Kilkenny

Sunshine: nil to 2 hours

Sunday 29th: A low passed to the north of Ireland early in the day leaving the country in a strong gale force west to southwesterly airflow with winds reaching storm force on northern and eastern coasts during the first half of the day. During the evening another intense low passed to the south of Ireland again giving storm force winds to the south coast late in the day. The day started with clear spells and showers and this continued into the late morning except in the south where the rain became prolonged and heavy at times. This rainfall spread to the entire southern half of the country in the afternoon but gradually moved back southward in the later hours of the day.

Rainfall: trace to 6mm generally, 10 to 13mm in the midwest, 21 to 29mm in the extreme

south

Temperature: max. 8°C to 10°C, min. 2°C to 7°C; ground temperatures down to zero in

Clones

Sunshine: nil to 4 hours

Monday 30th: Overnight a vigorous wave depression tracked northeastward, just off the south coast, giving rain in southern counties. Thereafter it was scattered showers in all areas as a further depression approached from the northwest and tracked southeastwards over Ulster and north Leinster during the afternoon and early evening. Winds were generally southwest to westerly, moderate to fresh and gusty during the afternoon and veered northwesterly during the evening and moderated.

Rainfall: 1 to 5mm in the northwest, 8 to 13mm generally, 18 to 21mm in the southeast

Temperature: max. 8°C to 11°C, min. 1°C to 6°C; ground temperatures down to -1°C in

the midlands

Sunshine: 1 to 2 hours generally, 5 hours at Cork Airport

Tuesday 31st: Tuesday was a cold breezy day with widespread showers, some heavy and thundery in places. Winds were generally moderate to fresh and gusty north-westerly backing southwesterly during the afternoon and evening.

Rainfall: 1 to 5mm generally, 8 to 11mm in the northwest

Temperature: max. 9°C to 11°C, min. 3°C to 5°C inland, up to 7°C coastal

Sunshine: 2 to 6 hours

TABLES

Monthly Weather Bulletin, October 2000, page 16

County / Station	TEMPERATURE (°C)						
	Mean max.	Mean min.	Mean/ deviation from average	Highest max./date	Lowest min./date	Lowest grass min./date	
CO. CLARE							
SHANNON AIRPORT	13.6	8.0	10.8 -0.3	18.0 3	2.1 21	-3.2 21	
CARRON	12.6	6.5	9.6 -0.2	16.6 3	1.5 21	-3.7 21	
CO. CORK							
FERMOY (MOORE PARK)	13.4	5.5	9.5 -0.9	16.4 3	-1.6 21	-4.7 21	
CORK AIRPORT	12.8	6.9	9.9 -0.5	16.5 14	3.0 30	0.1 21	
SHERKIN ISLAND	13.4	8.9	11.2 -0.5	15.9 3	1.8 21	0.6 21	
BALLINCURRIG (PEAFIELD)	12.9	5.6	9.3	16.8 14	1.9 30	-0.5 21 26	
CO. DONEGAL							
MALIN HEAD	12.5	8.1	10.3 -0.5	17.3 3	3.7 30	2.1 22	
BALLYSHANNON (CATHLEEN'S FALL)	12.5	7.4	10.0 -0.4	18.0 3	2.9 30		
LETTERKENNY (MAGHERENAN)	13.0	6.1	9.6 -0.3	18.5 3	1.4 22		
CO. DUBLIN							
DUBLIN (PHOENIX PARK)	14.3	5.8	10.1 -0.3	18.9 3	1.2 22	-5.5 22	
DUBLIN AIRPORT	13.2	6.2	9.7	18.1 3	2.0 11	-4.7 22	
CASEMENT AERODROME	13.2	6.3	9.8 -0.5	18.3 3	1.8 11 21	-0.9 11	
DUBLIN (MERRION SQUARE)	13.9	7.9	10.9 -0.6	19.2 3	4.4 30		
CO. GALWAY							
GALWAY (UNIV. COLL.)	13.8	7.8	10.8 -0.2	18.0 3	1.1 21	-5.5 21	
MAAM VALLEY	13.2	7.8	10.5	16.8 2	1.8 21	-2.9 21	
CONNEMARA NATIONAL PARK	12.6	7.5	10.1 -0.5	16.1 3	3.5 30		
BALLYGAR	13.1	6.2	9.7	17.5 3	-0.9 21	-2.5 21	
CO. KERRY							
VALENTIA OBSERVATORY	13.2	8.3	10.8 -0.8	16.2 2 3	1.8 21	-2.2 21	
ARDFERT (LISCAHANE)	13.2	7.2	10.2 -0.8	17.6 3	2.7 21	-0.6 21	
CO. KILKENNY							
KILKENNY	13.7	5.6	9.7 -0.5	17.0 14	-0.8 21	-6.6 21	
CO. LETRIM							
BALLINAMORE	12.5	5.3	8.9 -0.8	17.3 3	-0.2 21	-1.5 21	
CO. LIMERICK							
MOUNT RUSSELL	12.5	6.8	9.7	16.2 14	2.6 11	-1.0 21	
CO. LOUTH							
ARDEE (BOHARNAMOE)	13.9	5.8	9.9 -0.1	19.4 3	0.6 21	-5.9 21	
CO. MAYO							
BELMULLET	13.0	8.5	10.8 -0.1	16.0 3	3.7 21	-1.2 21	
STRAIDE	13.1	6.5	9.8 -0.4	18.0 3	-1.5 21	-6.0 21	
CONNAUGHT AIRPORT	11.3	5.8	8.6	16.0 3	1.1 30	-1.3 21	
CO. MEATH							
WARRENTOWN	12.9	6.2	9.6 -0.4	17.4 2	0.5 21	-2.9 21	
CO. MONAGHAN							
CLONES	12.7	6.2	9.5 -0.4	17.0 3	1.1 21	-3.7 21	
CO. OFFALY							
BIRR	13.1	6.4	9.8 -0.5	17.9 3	-0.3 21	-5.0 21	
DERRYGREENAGH	12.9	4.8	8.9 -0.8	17.5 3	0.0 21	-5.6 21	
CO. SLIGO							
ARDTARMON	13.0	7.6	10.3	17.6 3	3.5 21	0.0 21	
CO. TIPPERARY							
FETHARD (PARSONSHILL)	12.7	5.3	9.0	15.7 3	1.3 21	-3.8 21	
CO. WATERFORD							
WATERFORD (TYCOR)	14.1	6.6	10.4 -0.4	17.0 14	2.7 17		
DUNGARVAN (CARRIGLEA)	14.1	6.3	10.2 -0.7	17.5 14	0.8 21	0.0 21	
CO. WESTMEATH							
MULLINGAR II	12.8	5.6	9.2 -0.6	17.2 3	-1.3 21	-5.4 21	
CO. WEXFORD							
JOHNSTOWN CASTLE	14.3	6.4	10.4 -0.4	18.3 8	1.4 30	0.2 22	
ROSSLARE	14.0	8.1	11.1 -0.4	17.6 14	2.9 30	2.2 6	
CLONROCHE	13.3	5.7	9.5 -0.6	17.0 14	1.7 17	-4.4 17	
JOHN F. KENNEDY PARK	13.4	6.5	10.0 -0.6	17.5 14	2.8 30	-1.0 6	

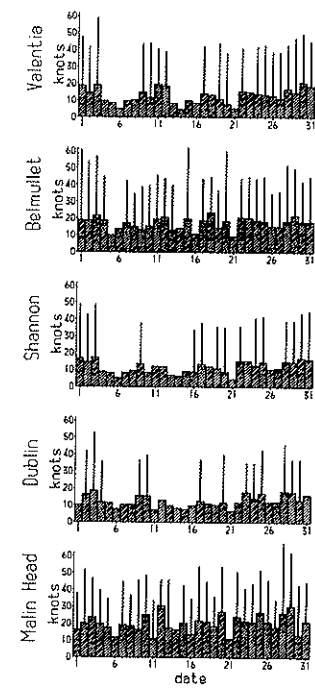
TABLES

Monthly Weather Bulletin, October 2000, page 17

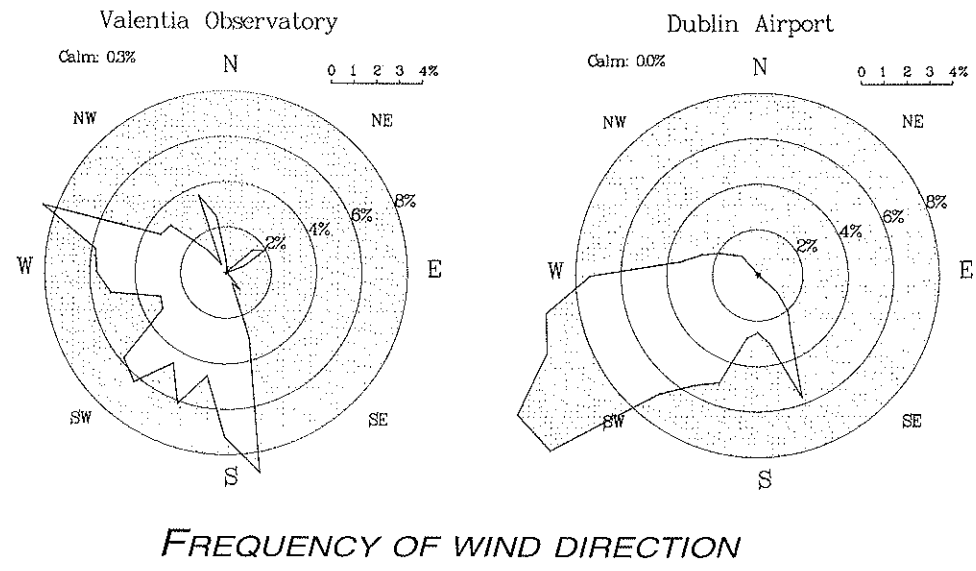
County / Station	RAINFALL (MM)				SUNSHINE (HOURS)			
	Total amount	% of average	Most in a day/date		Daily mean (hrs./day)	% of average	% of possible	Most in a day/date
CO. CLARE								
SHANNON AIRPORT	182.6	196	26.2 26		3.33	125	31	8.2 18
CARRON	298.0	178	31.1 26					
CO. CORK								
FERMOY (MOORE PARK)	156.7	170	23.1 17					
CORK AIRPORT	184.1	146	35.0 29		3.95	140	37	10.1 16
SHERKIN ISLAND	205.5	176	37.6 29		3.97	128	37	9.6 16
BALLINCURRIG (PEAFIELD)	197.7		33.8 29		3.72		30	9.3 16
CO. DONEGAL								
MALIN HEAD	174.3	146	22.2 28		2.54	104	24	7.8 5
BALLYSHANNON (CATHLEEN'S FALL)	230.1	195	29.2 28		2.94	123	28	8.1 5
LETTERKENNY (MAGHERENAN)	193.9	154	36.1 28					
CO. DUBLIN								
DUBLIN (PHOENIX PARK)	80.6	115	12.9 24		3.84	129	36	9.1 15
DUBLIN AIRPORT	86.7		11.9 26		3.97	127	37	9.2 5 20
CASEMENT AERODROME	80.2	116	9.3 15		3.78	122	36	9.1 20
DUBLIN (MERRION SQUARE)	65.3	100	8.7 26					
CO. GALWAY								
GALWAY (UNIV. COLL.)	213.6	166	30.6 8		3.35	117	32	9.4 5
MAAM VALLEY	520.3		60.2 24					
CONNEMARA NATIONAL PARK	329.6	185	41.1 26					
BALLYGAR	183.3	170	22.5 8					
CO. KERRY								
VALENTIA OBSERVATORY	302.4	192	37.4 26		2.65	104	25	8.4 20
ARDFERT (LISCAHANE)	190.0		23.1 29		3.36		31	8.6 14
CO. KILKENNY								
KILKENNY	127.3	148	12.3 8		3.84	142	36	9.5 5
CO. LETRIM								
BALLINAMORE	195.1	160	27.3 28		3.16	127	30	8.0 5 21
CO. LIMERICK								
MOUNT RUSSELL	205.1		24.7 28					
CO. LOUTH								
ARDEE (BOHARNAMOE)	102.6	127	19.6 8					
CO. MAYO								
BELMULLET	257.7	192	26.5 24		3.29	125	31	9.1 5
STRAIDE	197.4	146	15.5 17		3.21			9.2 5
CONNAUGHT AIRPORT	198.1		23.0 22		3.18		30	9.4 5
CO. MEATH								
WARRENTOWN	114.7	137	13.9 8					
CO. MONAGHAN								
CLONES	111.8	115	11.1 26		3.21	131	30	8.8 21
CO. OFFALY								
BIRR	141.2	168	16.3 26		3.29	121	31	9.2 21
DERRYGREENAGH	131.8	153	16.2 26					
CO. SLIGO								
ARDTARMON	196.6		19.7 31					
CO. TIPPERARY								
FETHARD (PARSONSHILL)	158.7		29.0 26					
CO. WATERFORD								
WATERFORD (TYCOR)	157.2	150	28.6 29					
DUNGARVAN (CARRIGLEA)	203.7		38.4 29		4.00		31	9.3 16 21
CO. WESTMEATH								
MULLINGAR II	153.7	163	19.5 8		3.87	142	37	9.0 5
CO. WEXFORD								
JOHNSTOWN CASTLE	181.7	168	38.0 29		3.60	117	34	9.1 5 21
ROSSLARE	171.1	180	39.1 29		4.38	134	41	10.2 5
CLONROCHE	192.8	162	28.0 29		4.02	131	38	9.1 5
JOHN F. KENNEDY PARK	186.1	169	33.8 29		3.99	137	37	9.4 5

County / Station	WEATHER — NO. OF DAYS WITH									MEAN 0900 SOIL TEMPERATURES (°C)		
	Rain days	Wet days	Air frost	Ground frost	Snow lying	Snow	Hail	Thunder	Fog	10cm	20cm	30cm
CO. CLARE												
SHANNON AIRPORT	27	24	0	3	0	0	0	0	2	10.3	11.4	11.8
CARRON	29	26	0	7						10.2		11.3
CO. CORK												
FERMOY (MOORE PARK)	24	19	1	7						9.6	10.3	11.1
CORK AIRPORT	24	21	0	0	0	0	0	0	7	9.0	10.2	11.8
SHERKIN ISLAND	27	24	0	0						11.7		12.6
BALLINCURRIG (PEAFIELD)	24	21	0	2						8.5	9.6	10.5
CO. DONEGAL												
MALIN HEAD	29	23	0	0	0	0	1	0	0	9.2	10.0	11.6
BALLYSHANNON (CATHLEEN'S FALL)	29	26	0									
LETTERKENNY (MAGHERENAN)	30	25	0									
CO. DUBLIN												
DUBLIN (PHOENIX PARK)	23	16	0	16								
DUBLIN AIRPORT	23	16	0	6	0	0	0	0	1	10.6	10.5	10.8
CASEMENT AERODROME	19	17	0	2	0	0	0	0	1	8.2	9.2	10.4
DUBLIN (MERRION SQUARE)	23	16	0									
CO. GALWAY												
GALWAY (UNIV. COLL.)	28	25	0	2								
MAAM VALLEY	29	28	0	2								
CONNEMARA NATIONAL PARK	28	27	0									
BALLYGAR	31	25	1	2								
CO. KERRY												
VALENTIA OBSERVATORY	28	26	0	1	0	0	1	0	0	10.2	10.7	11.9
ARDFERT (LISCAHANE)	28	21	0	1								
CO. KILKENNY												
KILKENNY	24	19	1	15	0					8.6	9.8	11.1
CO. LETRIM												
BALLINAMORE	29	20	1	3						9.1	10.2	11.0
CO. LIMERICK												
MOUNT RUSSELL	27	23	0	3						8.4	9.5	
CO. LOUTH												
ARDEE (BOHARNAMOE)	26	15	0	12						9.8	10.8	11.2
CO. MAYO												
BELMULLET	29	28	0	1	0	0	8	0	0	10.1	11.0	12.3
STRAIDE	29	28	1	6						9.9		
CONNAUGHT AIRPORT	28	27	0	2	0	0	2	0	12	7.4	8.4	9.6
CO. MEATH												
WARRENSTOWN	24	18	0	5						9.6	10.2	10.9
CO. MONAGHAN												
CLONES	26	20	0	7		0				8.7	10.1	11.2
CO. OFFALY												
BIRR	26	20	1	3		0				8.6	9.8	11.2
DERRYGREENAGH	25	21	0	13								
CO. SLIGO												
ARDTARMON	27	23	0	0								
CO. TIPPERARY												
FETHARD (PARSONSHILL)	26	20	0	10						9.0	10.0	
CO. WATERFORD												
WATERFORD (TYCOR)	25	19	0									
DUNGARVAN (CARRIGLEA)	24	23	0	0							10.0	11.4
CO. WESTMEATH												
MULLINGAR II	25	21	1	11		0				8.7	9.7	11.3
CO. WEXFORD												
JOHNSTOWN CASTLE	23	18	0	0						9.4	10.1	10.9
ROSSLARE	21	17	0	0	0	0	0	0	1	10.0	10.9	12.7
CLONROCHE	23	20	0	15						9.2	10.4	11.9
JOHN F. KENNEDY PARK	23	20	0	5						9.7	10.7	12.9

County / Station	WIND (KNOTS)									
	Mean speed	Max. 10-min. dir. speed	mean date/hour	Max. Gust dir. speed	date/time	Days with gales	Hours with gale gusts			
CO. CLARE										
SHANNON AIRPORT	11.5	300° 35	3/19	260° 49	1/1705	1	15			
				300° 49	3/1812		65			
CO. CORK										
CORK AIRPORT	11.4	280° 34	3/18	190° 51	3/1203	1	14			
CO. DONEGAL										
MALIN HEAD	20.3	260° 48	28/22	250° 68	28/2211	12	28			
CO. DUBLIN										
CASEMENT AERODROME	13.3	180° 33	3/12	240° 54	25/0043	0	15			
DUBLIN AIRPORT	12.4	180° 35	3/15	180° 53	3/1454	1	13			
CO. KERRY										
VALENTIA OBSERVATORY	12.8	290° 34	3/17	290° 59	3/1654	1	19			
CO. KILKENNY										
KILKENNY	9.1	180° 37	3/13	180° 54	3/1256	1	5			
CO. MAYO										
BELMULLET	17.1	240° 40	20/09	190° 62	15/1055	4	26			
CONNAUGHT AIRPORT	12.0	290° 31	1/24	300° 51	2/0251	0	16			
		310° 31	3/20				66			
CO. MONAGHAN										
CLONES	9.6	290° 27	25/06	180° 43	28/1244	0	7			
CO. OFFALY										
BIRR	8.8	180° 24	3/14	180° 41	3/1252	0	8			
CO. WESTMEATH										
MULLINGAR II	8.5	210° 24	28/12	240° 41	24/0000	0	6			
CO. WEXFORD										
ROSSLARE	12.6	200° 35	3/17	200° 60	3/1618	1	20			



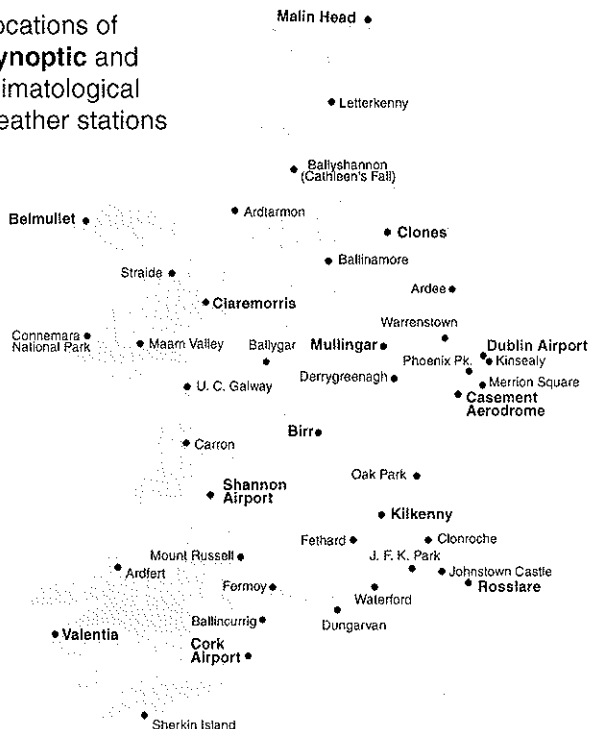
Daily mean wind speeds and maximum significant gusts (34 knots or more)



FREQUENCY OF WIND DIRECTION

NOTES ON THE TABLES

Locations of Synoptic and Climatological weather stations



The **Monthly Weather Bulletin** is produced by the Climatology and Observations Division of Met Éireann. The annual subscription to the bulletin costs £36. Further climatological information is available from the Climate Enquiries Office, Glasnevin Hill, Dublin 9, telephone 01-8064260, fax 01-8064216.

WEATHERDIAL
FROM MET ÉIREANN



The latest official weather information by phone, updated 3 times a day, every day.

Just call 1550 123 PLUS the number for your area:

WEATHERDIAL FAX

Detailed fax forecasts & charts
CALL 1570 131 838
Call from a fax machine with tone phone



Munster.....850
Leinster.....851
Connaught.....852
Ulster.....853
Dublin.....854
Sea Area.....855

Calls cost per minute: 58p voice, 100p fax (incl. VAT). An IndoCom service. Tel: (01) 611 2021.

A. General

- Rainfall amounts are given in millimetres, temperature in degrees Celsius, sunshine duration in hours and wind speed in knots. (1 knot=1.15 m.p.h.)
- At all stations daily rainfall totals refer to the 24-hour period ending at 0900UTC the following day. The term rainfall includes all forms of precipitation, such as snow and hail, and deposition from dew or frost, measured as equivalent rain.
- 'Reindays' and 'wetdays' are days during which the total rainfall is not less than 0.2mm and 1.0mm respectively.
- A 'day' for the purposes of this publication refers to the period from 0900UTC on a particular day to 0900UTC on the following day. (This is because climatological stations make their daily observations at 0900UTC.)
- The mean daily air temperature over a period is taken as the mean of the daily maxima and daily minima (averaged separately over the period).
- Days with air frost are those during which the minimum air temperature was below 0°C. Similarly days with ground frost indicate days when the grass minimum temperature was below 0°C. (Grass minimum temperatures are measured by a thermometer placed horizontally on pegs just above the tips of short grass.)
- Mean soil and earth temperatures are based on readings taken at 0900UTC.
- A gale is a mean wind over a 10 minute period of 34 knots or more. A gale gust is a gust of 34 knots or more. All wind speeds refer to the wind at an effective height of 10 metres above the ground.
- 'e' denotes that the value is calculated using one or more estimated readings.
- Data from Northern Ireland is kindly provided by the Belfast Weather Centre.

B. Agmet

- Calculated Potential Evapotranspiration (P.E.) values are based on values of temperature, sunshine, wind speed and vapour pressure using the Penman formula. Because of formula limitations, negative values can occur in winter; these are replaced in the table by zero. Measured P.E. values are those measured by means of soil-filled tanks sunk into the ground with their upper grass-covered ends at surface level.
 - Soil moisture deficits and surpluses are computed from the differences between rainfall and actual evapotranspiration (A.E.). Estimates of A.E. are derived from measured values of P.E. (See Agmet Memo No. 1, 1968). Soil moisture surpluses are assumed to be removed by drainage and surface run-off and are not therefore carried forward from one period to the next. Soil moisture deficits are regarded as being cumulative. Where heavy rain occurs near the end of the fixed period, the date of cut-off may be adjusted to avoid error due to insufficient run-off time.
 - Degree day totals are calculated using the method set out by McVicker in the Journal of the Institution of Heating and Ventilating Engineers (Vol. 14 No. 38, Nov-Dec 1946).
 - Global solar radiation values are given in MJ/sq.m. correct to two decimal places (3.6MJ=1KWh).
- ### C. Laboratory
- Daily samples of air and precipitation are taken at Valentia Observatory at 1000UTC each day. Monthly precipitation samples at other stations are taken at 1200UTC on the 1st of each month.
 - Air sample data are given in microgrammes per cubic metre, electrical conductivity in micro-Siemens per centimetre and pH in pH units.