

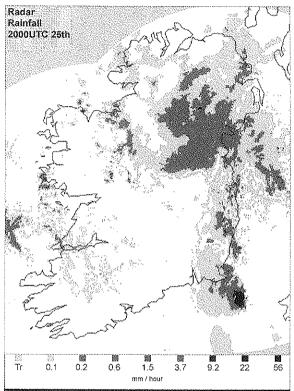
Monthly Weather Bulletin

Published by Met Éireann, Glasnevin Hill, Dublin 9

AUGUST 2000

Frequent inundersionns dlupping Alugiusi, Widespread on 25th este e parquis Weather 2 Rainfall 6 Sunshine 9 Temperature 8 NSIDE Tables 16 Marine/Agmet 10 Features 12 Diary 14

SUNSHINE, TEMPERATURE ABOVE NORMAL; SOME HEAVY AND THUNDERY FALLS



Thunder, hail storms and waterspouts

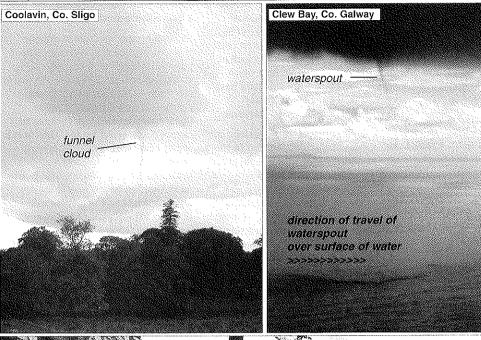
August was warmer and sunnier than normal everywhere, but nowhere was it as warm or sunny as August 1995. The second half of the month was much sunnier than the first; cloudy and humid conditions during the first half of August gave some very warm, muggy nights, but the highest daytime temperatures were recorded during the final week. Throughout the month there were some localised heavy showers, often accompanied by thunder and with some occasional torrential downpours. On the 25th a much more extensive band of thunderstorms crossed the country, giving locally heavy falls. Because of the showery nature of much of the precipitation during the month, rainfall totals varied widely across the country.

Low pressure close to the country at the start of the month gave unsettled, showery conditions. A band of rain moved slowly eastwards on the 1st, bringing some heavy falls in the north and west but only small amounts in the southeast. Showers developed early on the 2nd, heaviest in the northern half of the country close to the centre of the depression, with thunder in places. Ireland lay in a moderate northwesterly airstream on the 3rd as the

(continued on page 4)

August was a month of unusually frequent thunderstorm activity, occuring throughout the month but especially in the period 15th to 20th, when isolated thunder was recorded each day, and on the 25th when it was recorded at all but a few stations. Thunderstorms in the period around the middle of the month were accompanied by tornadoes, as seen from the pictures opposite. At Coolavin, Co.Sligo, a funnel cloud, i.e. a tornado not reaching the ground, was observed on the afternoon of the 17th, while around the same time a waterspout, or miniature tornado over water, was observed from an Air Corps helicopter over Clew Bay. A hailstorm over the north Dublin town of Skerries gave a covering of over 10cm of hail on the morning of the 20th, giving the appearance of snowfall. The following day a tornado at Toome Bridge, Co. Antrim, produced hailstones of 13mm diameter, while at Aldergrove Airport near Belfast there was a total of 7 days during the month with thunder, around its usual number for a whole year and the highest for any month at the station for exactly 50 years. Widespread thunderstorms on the 25th were heaviest in the eastern half of the country (see radar rainfall chart above), giving falls of over 20mm in places.

(Coolavin picture: courtesy Madame MacDermot, Clew Bay picture; courtesy Air Corps, Dept. of Defence, Skerries picture: Fingal Independent, Cover picture; Peter Lennon)





depression moved over Britain; shower activity declined and died out almost everywhere on the 4th as a ridge of high pressure approached the southwest coast. This marked the beginning of a spell of very warm and humid weather which persisted up to the 13th. This spell was characterised by generally cloudy conditions in a southwesterly airstream.

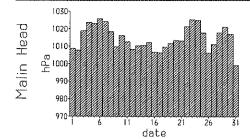
Weak frontal systems brought patchy rain along Atlantic coasts on the 5th and 6th, but there were spells of heavy rain locally over the following days, particularly late on the 8th and early on 9th in the west and northwest, when some very heavy falls caused localised flooding. At most stations in the midlands, east and south, however, rainfall totals for the period 4th to 13th were small. The same period was notable for its high nightime temperatures; minima were above 10°C at almost all stations during the first half of August and were above 15°C in many places between the 6th and 8th.

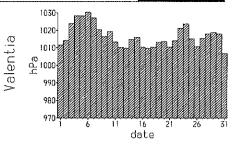
Between the 14th and 16th there was a change in weather pattern as a series of cold fronts crossed quickly eastwards over Ireland. These brought some significant falls of rain in the northwest on the 14th and 15th, but more generally on the 16th as heavy thundery showers affected all but southern counties. By the end of the 16th, Ireland lay in a cooler, less humid airstream than during the first half of the month as a depression lay close to the northwest coast. This shallow area of low pressure was the dominant influence on the weather up to the 21st. During this period there were frequent thundery showers, some of which were severe with local downpours and falls of hail. Most of the showers were limited in extent, but with light winds they were also slowmoving. As a result, rainfall accumulations of up to 50mm for the period 16th to 21st were measured in a few locations while less than 10mm fell during the same period at other stations. Between the showers there were long

spells of sunshine, but temperatures were a little below normal.

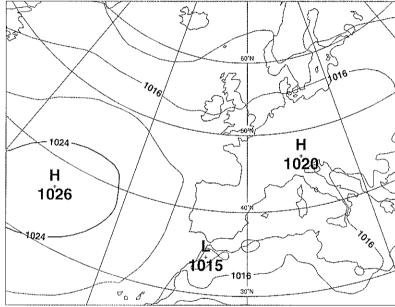
Showers became confined to extreme southern areas on the 22nd as an area of high pressure moved close to the north coast. The 23rd and 24th were very warm and sunny as the anticyclone moved southwards over the country; light northeasterly breezes kept northern and eastern coasts cooler by day. There was a warm, sunny start to the 25th in most areas but bands of thunderstorms associated with a depression over Biscay moved northeastwards later in the day. giving several hours of thunder and lightning in most parts of the country, with falls of between 10mm and 25mm in places. The 26th and 27th were showery in most places, but showers became isolated by the 28th as pressure rose over the country. The 29th and 30th were mostly dry and sunny, but cloud associated with a depression to the west brought rain into northwestern areas late on the 30th. This rain spread to all areas early on the 31st before clearing to scattered showers.

Mean windspeeds for the month of between 7 and 10 knots (8 and 11 m.p.h.) were below normal everywhere and were the lowest for August for between 5 and 17 years at many stations. After some moderate winds during the first three days and on the 8th/9th, winds were light for most of the month thereafter and gale gusts were recorded only at some coastal stations. The highest gust, 52 knots (60m,p,h,), was measured at Belmuliet on the 8th. The month was notable for the frequency of thunder, with both Belmullet and Casement Aerodrome observing thunder on 5 days. Thunderstorms, with hail in places, were recorded on each day during the periods 1st to 2nd, 15th to 21st and 25th to 26th and were particularly heavy and widespread on the 25th (see pages 2 and 3). Fog was recorded on several days during the early morning, especially in the period 5th to 7th.

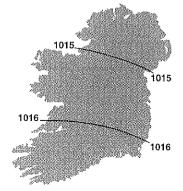




Mean daily M.S.L. pressure (hPa)



the above map is based on means of 1200 UTC values

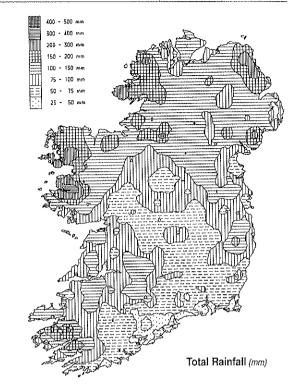


MEAN ATMOSPHERIC PRESSURE

Mean sea level pressure values were a little above normal for August, ranging from close to 1014hPa in the north to over 1016hPa in the south. After an area of low pressure cleared eastwards early in the month, there followed a week of high pressure during which the highest values of the month were measured at all stations. The highest pressure, 1031.0hPa, was recorded at Valentia Observatory on the 6th. Late in the month a depression moved close to the north coast, resulting in the month's only pressure values below 1000hPa at some stations. Malin Head recorded the lowest value, 995.2hPa on the 31st.

Dry in many places, but with thundery showers at times

Like the preceding month, August rainfall totals were below normal at most stations but there were some exceptions due to the frequency of thundery showers. Totals varied widely over the country, ranging from 34mm at Waterford (Tycor) to 220mm at Maam Valley, Co. Galway, with percentage of normal values between 43% at Tycor and 165% at Warrenstown, Co. Meath. There was similar variation in the number of wetdays across the country (days with 1.0mm or more of rainfall), with between 11 and 14 wetdays at many midland, eastern and southern stations, but up to 22 such days at both Valentia Observatory and Connemara National Park. It was the driest August since 1995 at several statious but the wettest since 1989 at Casement Aerodrome.



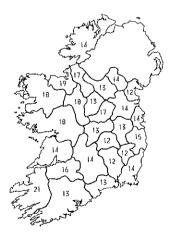
It was the sixth month this year with below normal rainfall at Cork Airport, where the yearly total so far of 475mm represents just 65% of normal for the period. While it was a drier than normal month at most stations, heavy showers produced substantial falls locally on a number of days during August, especially in the periods 1st to 2nd, 7th to 9th, 16th to 21st and 25th to 26th. Maam Valley measured the highest daily fall, 62.1mm on the 8th.



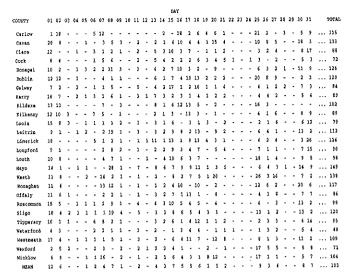
Left
A familiar pattern over Ireland, especially
during the second half of the month, as
thundery showers gave some local
downpours on the 16th.

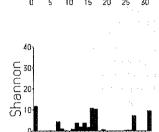
Below

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

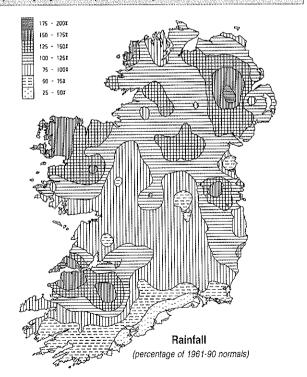


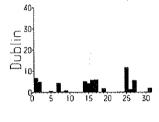
DAILY RAINFALL EXPRESSED AS % OF MONTHLY NORMAL

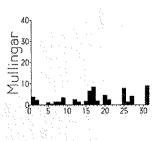


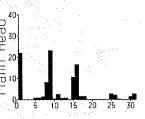


NOTE: In the above table, each value represents the percentage of the monthly normal that fell on each day. Stations within leach county are averaged together. For example, 18% of the average monthly rainfall in Co Cerlow fall on the 2nd.









Daily rainfall amounts (hours)

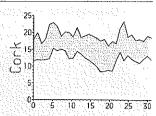
Warmer than normal everywhere

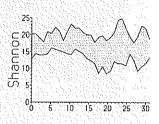
Mean air temperatures for the month ranged from 14.4°C at Connaught Airport to 17.7°C at Dublin (Merrion Square), around a degree above normal generally. Mean maximum temperatures of between 17.5°C and 21°C were over a degree above normal almost everywhere and were over two degrees above normal at Mullingar; at all stations they were at least two degrees lower than the values for August 1995, however.

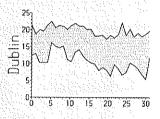
The first half of the month was very warm despite the generally dull conditions; while nightime temperatures fell closer to normal during the second half of the month, increased sunshine brought daytime temperatures higher and most stations recorded their highest values of the month in the period 23rd to 25th. The highest temperature, 25.2°C, was measured at Ardfert (Liscahane), Co. Kerry, on the 24th. Clear nights allowed temperatures to fall after midmonth and Straide, Co. Mayo, recorded the lowest air temperature of the month on the 18th, 3.4°C. Slight ground frost was recorded at a few stations between the 20th and 21st; the lowest grass minimum value of the month, -1.7°C, was measured at both Straide and at Clonroche, Co. Wexford, on the 21st.

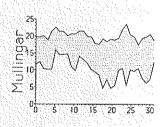
Mean Temperature

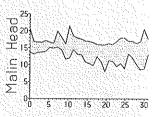
(difference from 1961-90 normals)



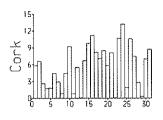


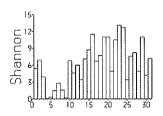


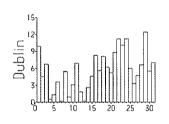


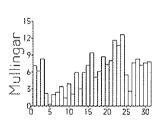


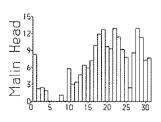
Daily maximum and minimum temperatures (°C)











Daily sunshine amounts (hours)

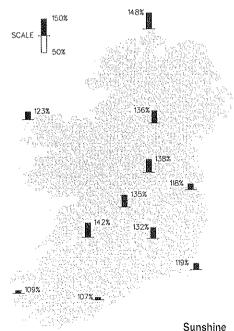
Sunny everywhere, espcially in north

Sunshine totals for the month were above normal everywhere and they were well above the August normal in the midlands and north. Totals ranged from 152 hours at Valentia Observatory to 215 hours at Rosslare, with percentage of normal values between 107% at Valentia and 148% at Malin Head.

At most stations it was the sunniest August since 1995. This was despite a very dull start to the month, particularly in the southwest; Valentia measured a total of just 6 hours

sunshine for the first 9 days. The second half of the month was considerably sunnier than the first, but at some stations it was the 22nd before daily sunshine of over 10 hours was measured. This value was also widely recorded on the 23rd, 24th and 29th. The highest value, 13.6 hours, was recorded at Galway (Univ. Coll.) on the 22nd.

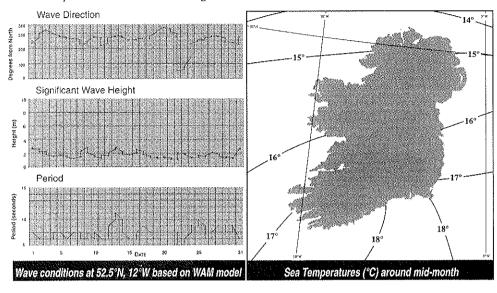
Global solar radiation totals were above normal everywhere, ranging from 108% of normal at Dublin Airport to 116% at both Malin Head and Belmullet. Totals at these latter two stations for the summer season (June to August) were over 10% above the long-term normal.



(percentage of 1961-90 normals)

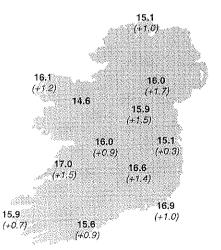
SEA TEMPERATURES

There was a big range in sea temperatures between north and south during August; they ranged from close to 15°C off the north and northeast coast to over 18°C in the south around mid-month, over a degree higher than normal generally. At Malin Head the mean sea temperature for the month was 15.7°C compared with the normal for August of 14.6°C.



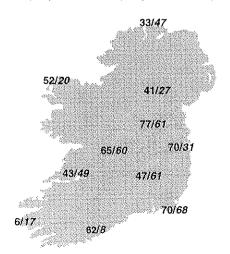
Mean 10cm Soil Temperatures (°C) at 0900Z

(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	RA.	INFA	LL.					TE	ИРЕ	RA1	URE	:						Suns	HINE	_,	
AGROMETEOROUS STATIONS Station		amount	% of average	rain days wei days	теал тах.	теап тіп.	mean ɗally	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 0900th	теал 30ст сі 09301г	total no. of hours	% of average	mean wind speed (ns) 2n agi.	P.E. (Penman) (mm)
Co. Cork Permoy	1-10 11-20 21-end month		73	6 4 7 6 5 4 18 14	19.6 19.9	13.3 10.4 9.5 11.0	15.0 14.7		9.2 4.0 5.5 4.0	18 21	0	124 106 113 344	69 54 56 178	7.5 2.6 3.0 2.6	18 21	0				-	2.3	-
Co. Donegal Letterkenny	1-10 11-20 21-end month	30.1 21.8 23.8 75.7	-	7 3 9 7 5 3 21 13	20.4	12.5 9.5 7.8 9.9	15.0 14.2	1.1	12.2 5.0 5.0 5.0	20 25	0	120 106 108 333	64 52 52 169	-		-	-	-	-	-	-	
Co. Kerry Ardfert	1-10 11-20 21-end month	62.4	-	9 6- 10 9 6 5 25 20	20.0 20.2	11.0 10.5	16.3 15.5 15.4 15.7	-		19	0	119 111 121 350	63 57 61 181	10.0 4.1 5.7 4.1	19 21	0	-	-	16.4 76.0 70.8 1 63.2	-	-	
Co. Leitrim Ballinamore	1-10 11-20 21-end month	37.0 62.9 32.0 131.9	-	9 6 9 7 6 4 24 17	19.6 20.1	8.2	16.4 14.9 14.2 15.2	-	:		0	120 105 107 332	64 52 52 168	8.0 4.2 3.0 3.0	20 30	0	15.4 14.5	16.8 16.0	26.7 57.2 89.3 173.2	-	2.6 1.3 1.1 1.7	-
Co. Louth Ardee	1-10 11-20 21-end month	16.4 35.4 30.4 82.2	-	4 4 7 5 8 4 19 13	21.0 20.6	9.6	17.6 15.3 14.4 15.7	-	6.1	20 22 22	0	132 109 110 350	76 56 55 186	3.4 1.1 2.7 1.1	20 23	0	17.9 15.3	17.9 17.7 16.0 17.2	-	-	-	-
Co. Waterford Dungarvan	1-10 11-20 21-end month	12.4 27.3 20.7 60.4		6 3 8 5 6 4 20 12	20.1	10.4	17.4 15.3 15.1 15.9	-	4.6	5 18 21 21	0	130 109 118 357		4.3	5 18 21 21	0	-	17.3 16.7	34.1 60.6 84.6 179.3	-	1.6 1.0 1.2 1.3	-
Co. Wexford Johnstown Cast	1-10 le 11-20 21-end month	9.9 22.6	- - 56	6 6 6 4 5 4 17 14	19.2 19.3	10.8 10.6	16.6 15.0 15.0	-	7.4 8.2	2 5 1 19 2 29	0	122 106 116	52	1.8	18	0	16.3 15.6	16.7 16.3	38.8 59.2 93.0	-	1.1 0.8 1.0 2.9	

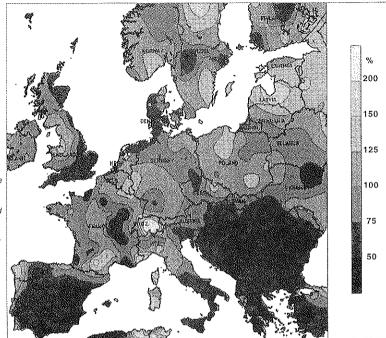
MEASURE	POTENT	TAL EVAPOT	RANSPIL	RATION (P.E.)
		Soil Mois			ļ-
County/		P.E. (mm)	:	Soil Moisture (/	nm)
Station	Period	Amount	Deficit	Accumulated Deficit	Surplus
Co. Dublin					
Kinsealy	1-10 11-20	24.6 27.2	-	69 58	3 11
	21-end month	18.3 70.1		48	10
Co. Kerry		33.3		0	28
Valentia Obs.	1-10 11-20 21-end month	13.7 21.4 31.8 66.9	14	0 14	6
Co. Leitrim					
Ballinamore	1-10 11-20 21-end month	15.0 27.7 22.5 65.2	-	15 0 0	23 35 10
Co. Wexford					
	1-10	21.7	4	51	-
Johnstown Castle	11-20 21-end month	17.5 25.8 65.0	4	55 51	4

SEE BACK PAGE FOR NOTES ON THE DATA

	GLOBAL (f	P.E. (Penman)			
County/ Station	1-10	total for month(mm)			
Co.Donegal Malin Head	113.71	168.64	188.11	470.46	73
Co.Dublin Dublin Airport	136.49	137.15	173.40	447.04	72
Co Kerry Valentia Chs.	102.03	182.43	156.37	440.83	67
Co.Kilkenny Kilkenny		not a	vailable	,	74
Co.Hayo Reimullet	119.49	144.66	184.60	448.75	73
Co.Honaghan Clones	118.03	146.48	172.88	437.39	70
Co.Offaly Birr	121.17	167.73	179.74	468.64	70

SUMMER RAINFALL

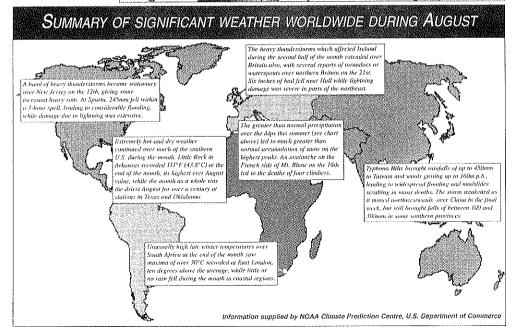
Percentage of 1961-90 normal, June - August 2000



Right

Percentage of normal rainfall for the summer season, i.e. June to August, shows a very similar pattern over Europe to that for spring (see Monthly Weather Bulletin for May), Less than half the normal rainfall fell over much of the Mediterranean, while the driest areas were once again over southeast Europe, where dry and very hot weather prevailed for most of the summer. The only areas with significantly more summer rainfall than normal were parts of northeast Europe and the Swiss Alps. (chart: Climate Prediction Centre, NOAA)

-summer summary for Ireland is on page 13.



Warm, sunny and mainly dry

Following a dry spring, particularly in the south, rainfall totals for summer were again below normal at most stations, with just over 75% of normal rainfall in parts of the midlands, south and southeast. Some localised heavy and often thundery falls during July and August brought totals above normal for the season at a few stations, however. Summer rainfall totals varied between 131mm at Rosslare and 310mm at Connaught Airport, with percentage of normal values between 76% of normal at Rosslare and 117% at Shannon Airport. It was the driest summer since 1995 at most stations but the wettest for 7 and 8 years at Casement Aerodrome and Shannon Airport respectively. Much of the rain that fell during the season was showery in nature, particularly during July and August when thunderstorms produced localised downpours. During one of these events on July 27th, Shannon Airport measured 39.0mm while over 50mm was recorded at other stations in the region on the same day. Mean air temperatures for the season were above normal for the sixth successive summer, varying between 13.8°C at Connaught Airport and 16.3°C at Shannon Airport. They were between half a degree and one degree above normal in most places but at no station was it as warm as the summer of 1995. Each of the summer months was warmer than normal, despite spells of relatively cool weather during June and July. The highest daytime temperatures at most stations were measured during short spells of hot weather in mid-June and late July. The highest value, 27.6°C, was recorded at Casement Aerodrome on June 18th, its highest June temperature since records began there in 1964. The same value was measured at Shannon Airport on July 22nd. Kilkenny recorded both the lowest air and grass minimum temperatures of the season on June 10th, 2.5°C and -3.7°C respectively; in both cases they were the lowest summer values at the station since 1993. Sunshine totals for the season were above normal at most stations. They ranged from 435 hours at Connaught Airport to 593 hours at Rosslare, with percentage of normal values between 96% of normal at Cork Airport and 122% at Malin Head. June was a dull month but July and August were mostly sunny, The sunniest spell of weather at most stations was during the second half of July; Belmullet measured the highest daily value, 15.1 hours, on both July 21st and 22nd. Malin Head recorded the highest gust of the season, 56 knots (65 m.p.h.) on June 13th, its highest summer gust since 1989.

This summary is based on midnight to midnight readings from synoptic stations operated by Met Éireann

		RAINFA	I.L (mm)		TEMPERA	TURE (°C)		Sunsin	NE (HOURS)	N	0. 0	F DA	YS V	итн	<u>.</u>	
County/ Station	Total	% of average	most in amount	a day date(s)	Mean	dill, from average	Extrer Highest		Daily mean	% of average	most in a day amount date(s)	Rain	Snow	Air frost	Harl	Thunder	Fog	Gale gusts
CO. CLARE																		
SHANNON AIRPORT	235.8	117	39.0	27 Jul	16.3	41.1	27.6	6.7	5.50	117	14.6 27 Jun	54	0	0	0	5	9	2
CO. CORK		1 1							Í									
CORK AIRPORT	171.8	77	29.2	31 Jul	15.0	40.8	24.2	6.0	5.19	96	14.8 20 Jul	51	0	0	0	1	29	7
CO. DONEGAL		1																
NALIN HEAD	192.1	84	23.1	9 Aug	14.0	10.5	23.9	0.8	5.81	122	14.9 22 Jul	47	0	0	0	5	2	14
CO. DUBLIN																		
DUBLIN AIRPORT	142.2	:	12.8	31 Jul.	14.5		25.7	4.8	5.51	100	14.8 17 ժա	54	0	0	3	5	18	4
CASEMENT AERODROME	181.0	107	16.4	3 Jun	14.9	+0.5	27.6	4.6	5.41	105	15.0 16 Jun	44	0	0	1	5	7	4
CO. KERRY																		
VALENTIA OBSERVATORY	269.0	102	27.2	7 Jun	15.0	40.6	26.1	7.3	5.39	110	14.2 19 Jul	65	û	6	0	2	10	4
CO. KILKENNY																		
KILKENNY	370.9	98	15.7	27 Jul	15.2	10.6	26.1	2.5	5.52	116	14.9 21 Jul	60	n/a	0		-n/a		2
CO. MAYO	į	1							}									
BELMULLET	211.3	92	22.2	8 Aug	15.0	+1.3	26.3	6.4	4.90	103	15.1 21.22 Jul	64	0	6	0	5	3	18
CONNAUGHT AIRPORT	309.9	:	18.4	2 Jun	13.8		24.7	5.6	4.73		15.0 6 ժա հ	68	0	5	0	3	33	7
CO. MONAGHAN									1									
CLONES	211.9	99.	23.2	31 Aug	14.8	8.0٠	25.5	4.4	4.92	311	13.4 28 Jun	60	n/a	6		-n/a		2
CO. OFFALY																		
BIRR	175.2	91	17.1	3 Jul	15.0	+0.6	25.9	3.1	4.78	109	13.8 22 Jul	: 55	n/a	0		-ti/a		7
CO. WESTMEATH																		
MULLINGAR II	1.68.0	80	18.5	2 Jul	14.7	+0.7	26.3	4.0	5.24	111	14.9 22 Jul	57	n/a	0		-n/a		1
CO. WEXFORD																		
ROSSLARE	131.1	76	30.0	31 Jul	15.2	+0.7	23.9	6.7	6.45	103	14.9 21 Jul	44	0	0	0	ğ	17	:



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Thesday 1st: A depression to the northwest of Ireland moved slowly southeastward. Mild with light scattered showers oversight but more persistent rain in the extreme north. It was a bright, breezy day with good sunny spells and scattered showers, some of which were heavy and thundery. Winds started off light to moderate southwesterly and increased fresh to strong and gusty in the afternoon, up to gale force on southwest coasts at times.

Rainfall: 1mm in Rosslare, 3 to 9mm generally, 12 to 14mm in the southwest, 23mm in Malin Head

Temperature: max. 17°C to 21°C, min. 10°C to 14°C

Sunshine: 2 to 8 hours generally, 9 to 11 hours in the east and southeast

Wednesday 2nd: The depression now centred over the North Channel continued to move slowly eastwards. Heavy rain along the east coast died out during the morning and was followed by widespread showers, some heavy. Winds were mainly between southwest and northwest, moderate to fresh with some gusts.

Rainfall: nil to 4mm generally, 5 to 12mm in the east and southeast Temperature: max. 17°C to 21°C, min. 11°C to 14°C

Sunshine: 1 to 4 hours generally, 5 to 9 hours in the east and southeast, 9 hours in Belmullet

Thursday 3rd: A north to northwesterly airflow covered the area. Winds remained from a northwesterly direction during the day and evening, moderate to fresh at first but slackening somewhat later. A weak warm front moved eastwards from the west. A mixture of rain, drizzle and showers persisted until about midday when showers become more isolated.

Reinfall: pil to 5mm

Temperature: max. 16°C to 21°C, min. 10°C to 14°C

Sunshine: 1 to 4 hours generally, 5 to 8 hours in the east and southeast

Friday 4th: The fresh northwesterly airflow backed to a westerly direction over Ireland. An occluding frontal system accompanied by lumid conditions approached the west coast. Patches of drizzle in places at times. Winds mainly light between southwest and northwest.

Rainfall: nil to trace

Temperature: max. 16°C to 20°C, min. 10°C to 14°C Sunshine; nil to 2 hours generally, 5 hours in Clones

Saturday 5th: High pressure to the south extended a ridge over the country; a weak warm front moved slowly over the area through the morning and early afternoon. Overnight it was cloudy and misty in western coastal counties with outbreaks of rain, drizzle or fog. This spread slowly castwards through the morning affecting all areas after which it brightened somewhat in southeastern areas but continued dull and misty with some drizzle and fog in coastal counties of the west and north. Warm and humid. Winds generally light to moderate south to southwesterly vecred westerly through the late morning and early afternoon, falling light inland during the evening.

Rainfall: nil to 2mm generally, 6mm in Valentia

Temperature: max. 17°C to 23°C, min. 8°C to 14°C inland, up to 16°C coastal

Sunshine: nil to 2 hours generally, 7 hours in Rosslare

Sunday 6th: Warm sector conditions prevailed over Ireland in a mild westerly airflow. Humid overnight with patches of drizzle, mist and fog. Cloudy, warm and humid throughout the day with scattered light showers or patches of drizzle and only short sunny spells. Mist and fog patches returned to some places after dark. Winds generally light to moderate and westerly in direction.

Rainfall: nil to 1mm

Temperature: max. 17°C to 24°C, min. 14°C to 17°C

Sunshine: nil to 4 hours

Monday 7th: An area of high pressure to the south of Ireland was declining. Very mild and hamid overnight with patches of mist, drizzle and some fog patches. It was a warm, cloudy, humid day with the drizzle persisting in places until mid-afternoon. Showers began to develop in the afternoon and some were heavy and even thundery. Winds were generally light to moderate between northwest and southwest in direction. Rainfall: trace to 7rmm generally, 17mm in Clones

Temperature: max, 16°C to 22°C, min. 13°C to 16°C inland

Sunshine: nil to 3 hours

Tuesday 8th: Active frontal systems approached Ireland from the Atlantic. Very mild, cloudy and humid overnight with patches of drizzle or light rain and some mist or fog patches also. Largely dry in most areas during the morning but a band of rain moved in over the west coast around midday and pushed northeastward during the evening. There was some local flooding in parts of Mayo. Some sunny spells in the

morning but cloudier in the afternoon and evening. Winds started off light sometimes moderate and mainly southwesterly in direction but in the afternoon winds became more southerly off northwest and west coasts.

Rainfall: trace to 3mm generally, 5mm to 9mm in the extreme west, 22mm in

Temperature: max. 18°C to 23°C. min. 14°C to 16°C

Sunshine: nil to 5 hours

Wednesday 9th: A shatlow depression to the north of Ireland and its associated occluding front brought heavy rain overnight in the west and northwest. The rain died out by midday as the associated cold front cleared the east coast into the Irish Sea. Sunshine amounts were disappointing with the southeast faring best. Winds were moderate to fresh southerly veering southwesterly to westerly and falling moderate with the nassen of the front.

Rainfall: trace to 4mm generally, 6 to 12mm in the west, 23mm in Malin Head Temperature; max. 16°C to 22°C, min. 13°C to 15°C

Sunshine: nil to 4 hours

Thursday 10th: Very humid during the night with light rain and drizzle in many areas well into the morning. Brightening up during the afternoon to give a warm dry afternoon. Winds mainly light from a westerly direction. Mist and fog and a little drizzle setting in again in the late evening particularly along the west and south coasts.

Temperature: max 16°C to 22°C, min, 11°C to 14°C

Sunshine: trace to 4 hours in the east and southeast, 5 to 9 hours elsewhere

Friday 11th: Ireland remained in a southerly airflow. A frontal trough approached the west coast during the morning and moved very slowly eastwards. A calm night with mist and drizzle and patches of fog. Some drizzle or light rain in the west during the day but otherwise dry. Light to moderate mainly southerly winds, a little fresher along the west coast at times with the odd gale gust.

Rainfall: nil to 1mm generally, 3 to 6mm in the extreme west Temperature: max. 17°C to 23°C, min. 10°C to 15°C Sunshine: nil to 5 hours generally, 7 to 11 hours in the east

Saturday 12th: A cold from weakened as it crossed the country and by early afternoon had cleared the east coast. Overnight rain in the west cleared early to give a bright sunny day but rain was slow to clear the extreme southeast. Winds were light southerly a first and later became southwesterly or variable.

Rainfall: nil to 4mm

Temperature: max. 18°C to 23°C, min. 13°C to 16°C Sunshine: trace to 4 hours in the east and southeast, 4 to 8 hours elsewhere

Sunday 13th: A shallow depression to the west gave a stack and mild southerly airflow over Ireland. Apart from local coastal rain or drizzle, the day started off mainly dry, with the best of any sunshine in northern counties. During the afternoon outbreaks of showery rain spread northward to affect many parts of the country, except the extreme east. Winds remained light throughout.

Rainfall: nil to 2mm generally, 7 to 10mm in the extreme west Temperature: max. 18°C to 23°C, min. 12°C to 15°C

Sunshine: nil to 5 hours

Monday 14th: A slack area of low pressure and associated fronts, drifted eastwards across the country during the first half of the day. Overnight and during the morning it was dull, mixty and humid with outbreaks of rain and drizzle in almost all areas and some fog. It brightened in the west in the late morning with just isolated showers spreading east to all areas by early afternoon. During the evening cloud thickened again in western areas with outbreaks of rain. Winds were generally light, southerly or variable to begin but wered westerly during the morning.

Rainfall: nil to 5mm generally, 7 to 11mm in the west Temperature: max. 17°C to 21°C, min. 10°C to 14°C

Sunshine: 1 to 3 hours in the east, 4 to 8 hours elsewhere

Thesday 15th: A depression approached from the Atlantic as associated frontal troughs moved across the country. Patchy rain in the west with scattered thundery showers elsewhere. Winds were mainly light to moderate southwesterly and gusty in

Rainfall: trace to 4mm generally, 8mm at Casement Aerodrome, 11 to 12mm in the northwest

Temperature: max. 17°C to 22°C, min. 9°C to 13°C

Sunshine: 5 to 10 hours

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Wednesday 16th: Showery troughs crossed the country through the day with thundery showers, most frequent during the morning and afternoon. Despite this, all areas had good lone sunny spells, naticularly the southern half of country. Winds

were generally light to moderate southwesterly but gusty in showers.

Rainfall: 1 to 7mm generally, 11 to 17mm in the west and northwest

Temperature: max. 16°C to 20°C, min. 9°C to 13°C

Sunshine: 5 to 12 hours

Thursday 17th: An unstable southwest to westerly, airflow brought scattered showers, many of them heavy and with hail or thunder, and most frequent during the morning and afternoon. Winds were mostly light to moderate in strength.

Rainfall: nil to 7mm generally, 8 to 14mm in the west and south midlands Temperature: max. 15°C to 20°C, min. 8°C to 12°C

Sunshine: 5 to 12 hours

Friday 18th: Pressure was almost uniform over the country. A slack north to northwesterly airflow established itself over the country later in the day and right. A frontal wave centred in the Pristof Channel area tracked north-northeastward. Any showers were mainly confined to the northwest, some thundery. Early morning fog and mist cleared to give a mostly dry bright day. Winds were mainly light methods the confined to the northwest of the confined to the confined to the northwest of the confined to the confined to

Rainfall: nil to 4 generally, 10mm in Clones & Casement Aerodrome, 15mm at Connaught Airport

Temperature: max. 16°C to 19°C, min. 5°C to 9°C inland, up to 12°C coastal Supplies: 6 to 13 hours

Saturday 19th: In a north to northwesterly airflow, a shallow, complex area of low pressure off the northwest const difficil slowly southward later in the day. Rain along the cast coast at first was followed by widespread showers during the afternoon and evening and some were thundery. Winds were mainty between southwest and northwest, light to moderate with some gusts in showers.

Rainfall: pil to 4mm

Temperature: max. 16°C to 20°C, min. 7°C to 11°C

Sunshine: 6 to 11 hours generally, up to 13 hours in Valentia and Malin Head

Sunday 20th: Pressure was fairly uniform over Ireland with a shallow depression off the west coast. Overnight mostly dry with just the odd shower and some fog patches also. The fog persisted in some areas until mid-monning. Scattered showers, some thundery and heavy and of hail. Winds were light to moderate and variable in direction.

Rainfall; nil to 5mm

Temperature: max. 16°C to 20°C, min. 5°C to 9°C inland, up to 11°C coastal Sunsbine: 4 to 5 hours in the east. 6 to 13 hours alsowhere

Monday 21st: The depression off the west coast of Ireland deepened and moved southward. Scattered showers overnight and thunder and lightning mainly in the northern half of the country. Fog lingered in some areas until mid-morning. Scattered showers developed, some of which were heavy and thundery. Winds were generally light, moderate at times on northern coasts, and southerly or easterly in direction.

Rainfall: nil to 5mm generally, 9mm in Belmullet

Temperature: max. 16°C to 21°C, min. 5°C to 9°C inland, up to 11°C coastal; ground temperatures down to -1°C in Kilkenny

Sunshine: 4 to 5 hours in the southwest, 7 to 10 hours generally, 13 hours in

Thesday 22nd: An easterly airflow dominated with a low pressure area to the south of the country, tracked very close to the extreme south coast during the period. Generally dry and fine throughout the country except for the south coast, Mist or fog in some midland areas cleared during the morning. Generally light east to northeasterly winds though somewhat fresher along the south coast.

Rainfall: nil or trace generally, 4mm in Belmullet Temperature: max. 16°C to 21°C, min. 9°C to 14°C

Sunshine: trace to 5 hours in the extreme south, 10 to 13 hours elsewhere

Wednesday 23rd: An area of high pressure developed over Ireland. Any mist or fog over the country cleared during the morning to giving a dry, warm sunny day. Winds were light northeasterly, Mist or fog again setting in some areas in the late evening.

Rainfall: nil or trace

Temperature: max. 17°C to 25°C, min. 9°C to 15°C

Sunshine: 9 to 13 hours

Thursday 24th: The fine weather continued as an anticyclone settled over Ireland.

Overnight mist and log soon cleared during the mouning and the day was dry, warm

and sunny countrywide. Winds were generally light easterly or variable with threezes in the afternuon.

Rainfall: nil or trace

Temperature: max. 18°C to 25°C, min. 5°C to 13°C inland, up to 15°C coastal

Sunshine: 9 to 13 hours

Friday 25th: The anticyclone over Ireland declined as a dundery trough moved up over the country from the south, introducing a very unstable easterly airflow. After a clear night with some mist or fog patches, heavy showers quickly spread into southern regions and thunderstorms became widespread over the country during the afternoon and evening. Winds remained light throughout.

Rainfall: nil to 3mm generally, 7 to 13mm in the midlands and at Connaught Aircost, 12 to 18mm in the east and southeast

Temperature: max. 18°C to 23°C, min 7°C to 14°C inland, up to 16°C coastal Sunshine: trace to 4 hours in the south, 5 to 8 hours elsewhere

Saturday 26th: An unstable west to northwesterly airflow covered Ireland while a showery trough moved castwards from the west coast. The thunderstorms of the previous evening continued into the early hours of Saturday and moved eastward. Widespread mist and fog developed and showers remained throughout the day in places. Winds were mainly light between southwest and northwest.

Rainfall: nil to 3mm generally, 10mm in Belmullet & 15mm at Casement Temperature: max. 17°C to 22°C, min. 10°C to 14°C

Sunshine: 1 to 3 hours in the east, 4 to 11 hours elsewhere

Sunday 27th: During the morning the showers were most frequent in the western half of the country but became widespread during the afternoon with some heavy and thundery. Winds were generally light to moderate westerly. The showers died out during the evening as a ridge of high pressure built from the west.

Rainfall: trace to 2mm on west & south coasts, 4 to 10mm inland

Temperature: max. 16°C to 20°C, min. 9°C to 12°C Sunshine: 5 to 10 hours

Monday 28th: A weak ridge from the northwest extended over much of the country during the day but low pressure to the southwest kept it much duller in parts of Munster. Overnight widespread mist and fog formed and this lingered through the morning in many midland and eastern areas. Some scattered showers chiefly in the west. Winds were generally light variable.

Rainfall: nil to 3mm

Temperature: max. 16°C to 20°C, min. 7°C to 12°C Sunshine: 2 to 8 hours generally, up to 13 hours in Malin Head

Thesday 29th: Low pressure and an occluded from to the southwest of the country tracked away southeastwards as the ridge from the northwest slowly intensified. Cool overnight with a good deal of mist and fog which cleared most areas in the early morning. A fine day almost everywhere with only the odd isolated shower. In south Munster there was some light rain and drizzle at times through the morning. Winds were mostly light variable.

Rainfall: nil or trace

Temperature: max, 17°C to 23°C, min. 7°C to 14°C

Sunshine: trace to 2 hours in the extreme south, 7 to 13 hours elsewhere

Wednesday 30th: An anticyclone declined as frontal troughs approached from the Atlantic in a freshening airstream. Clear skies everywhere except Cork, with occasional mist or fog in places until mid morning. By early evening cloud began to increase in the west and brought outbreaks of rain to western and northern coastal areas by end of day.

Rainfall: nil to 1mm generally, 9mm in Belmullet

Temperature: max. 18°C to 22°C, min. 5°C to 13°C, ground temperatures down to 1°C in Kilkenny

Sunshine: 4 to 10 hours

Thursdny 31st: A depression approached from the northwest, leaving Ireland in an unstable, west to northwesterly airflow. A frontal trough crossed the country during the morning. Outbreaks of heavy rain in the west gradually moved castwards crossing the east coast by late morning and heavy showers followed in its wake. Winds were southwest to westerly and gusty.

Rainfall: 2 to 3mm in the east and at Malin Head, 7 to 10mm generally, 15mm at Connaught Airport. 23mm in Clones

Temperature: max. 16°C to 21°C, min. 11°C to 14°C

Sunshine: 5 to 9 hours

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County /			7	EMI	PEF	AT	JRE	= (°C,)	
Station	Mean max.	Mean min.		deviation average	High max	nest /date	Lov min.	vest /date		west min./date
CO. CLARE										
SHANNON AIRPORT	20.5	12.9	16.7	1.1	24.9	24	8.5	20	3.6	28
CARRON	19.0	10.9	15.0	0.9	23.1	24	5.0	18	1.5	21
CO. CORK			1							
FERMOY (MOORE PARK)	19.9	11.0	15.5	0.7	23.5	6 24	4.0	18	2.6	18
CORK AIRPORT SHERKIN ISLAND	19.1 18.8	12.4 12.8	15.8	1.2	23.3	24 24	8.4 7.9	18 18 20	3.8 5.9	21 20
CO. DONEGAL	10.0	12.0	13.0	0.0	22.5	24	7.9	10 20	5.9	20
MALIN HEAD	17.4	12.4	14.9	0.8	21.4	11	8.0	20	5.8	25
BALLYSHANNON (CATHLEEN'S FALL)		12.0	15.5	1.0	22.6	23	6.9	19		
LETTERKENNY (MAGHERENAN)	20.4	9.9	15.2	1.1	24.0	1	5.0	20 25		
CO. DUBLIN			İ							
DUBLIN (PHOENIX PARK)	20.6	11.0	15.8	1.0	23.4	24	6.1	30	1.6	30
DUBLIN AIRPORT	19.8	11.0	15.4		22.5	6	5.4	30	2.7	21
CASEMENT AERODROME	20.0	11.2	15.6	0.8	22.6	24	5.2	24	2.9	30
DUBLIN (MERRION SQUARE)	20.2	13.7	17.0	1.1	24.0	6	10.4	18 30		
CO. GALWAY	20.2	12.2	16.3	1 1	22.7	22	7.4	20	, -	20
GALWAY (UNIV.COLL.) MAAM VALLEY	19.2	12.3 11.8	15.5	1.1	23.7 24.7	23 24	7.4	20 1.8	-1.5 4.0	20 18
CONNEMARA NATIONAL PARK	18.6	11.9	15.3	1.1	23.8	25	7.2	18	4.0	10
BALLYGAR	20.7	11.0	15.9	2,1	24.9	24	4.5	18	3.0	18
CO. KERRY		au.	12077				1,0			~~
VALENTIA OBSERVATORY	18.4	12.7	15.6	0.6	23.7	24	7.3	19	5.0	19
ARDFERT (LISCAHANE)	19.7	11.7	15.7	0.8	25.2	24	5.9	19	4.1	19
CO. KILKENNY							İ			
KILKENNY	21.0	10.6	15.8	0.9	24.1	24	4.7	21	-0.7	21
CO. LEITRIM						_				
BALLINAMORE	19.9	10.4	15.2	1.0	24.0	24	4.5	20	3.0	30
CO. LIMERICK NOUNT RUSSELL	18.8	11.7	15.3		22.8	24	7.8	19	4.4	19
CO. LOUTH	10.8	11.7	15.5		22.8	24	/.8	1.9	9.4	19
ARDEE (BOHARNAMOE)	21.2	10.2	15.7	1.3	23.9	5	4.3	20	1.1	20
CO. MAYO	51.5	20.5	1.517	1	55.5	2	1.5		1.1	20
BELMULLET	18.8	12.1	15.5	1.2	22,7	25	6.4	1.8	3.6	18
STRAIDE	19.6	10.3	15.0	0.6	24.1	24	3.4	18	-1.7	21
CONNAUGHT AIRPORT	17.8	11.0	14.4		21.8	24	7.5	21	3.6	19
CO. MEATH										
WARRENSTOWN	20.2	11.6	15.9	1.3	23.4	24	7.6	30	3.5	21
CLONES	20.1	10.0	15 5		22.2	^.		00		
CO. OFFALY	20.1	10.9	15.5	1.2	23.2	24	5.2	20	1.4	20
BIRR	20.3	10.9	15.6	0.9	24.6	23	5.6	29	2.0	20
DERRYGREENAGH	20.5	10.1	15.3	1.0	23.8	24	5.1	21	-0.1	20
CO. SLIGO	20.5	20.2	13.3	4.10	23.0	2.7	3.1	21	0.1	20
ARDTARMON	19.4	11.9	15.7		22.1	23	7.8	20	5.2	19
CO. TIPPERARY										
FETHARD (PARSONSHILL)	20.0	10.7	15.4		23.3	24	7.1	18	2.3	18
CO. WATERFORD										-
WATERFORD (TYCOR)	21.0	11.8	16.4	1.2	24.4	24	6.6	18		. 1
DUNGARVAN (CARRIGLEA)	20.5	11.3	15.9	0.6	23.5	6	4.6	21	4.3	21
CO. WESTMEATH	20. 1	10.5	1	1 ,	22 6	24	4 7	10 00		20
MULLINGAR II CO. WEXFORD	20.1	10.5	15.3	1.0	23.5	24	4.7	18 20	1.4	20
JOHNSTOWN CASTLE	19.6	11.3	15.5	0.7	23.7	6	7.4	19	1.8	28
ROSSLARE	19.5	13.0.	16.3	1.1	23.7	6	9.6	18	4.2	20 29
CLONROCHE	20.3	11.5	15.9	1.2	24.0	6	5.4	21	-1.7	21
JOHN F. KENNEDY PARK	19.8	11.3	15.6	0.6	22.8	6	6.4	19	2.0	18 19
			Ì							1

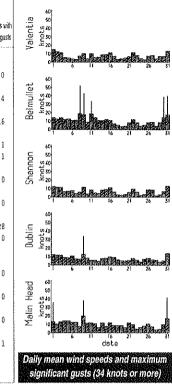
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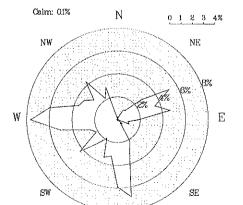
County /		INF/	ALL	(мм)	SUNSHINE (HOURS)						
Station	Total	% of	Mos	t in	Daily mean	% of	% of	Most	in		
	amount	average	a day	/date	(hrs./day)	average	possible	a day/o	date		
CO. CLARE											
SHANNON AIRPORT	79.4	97	13.4	31	6.29	142	43	13.1	23		
CARRON	110.5	79	27.0	31							
CO. CORK FERMOY (MOORE PARK)	55.2	73	11.1	18	5.03	109	34	10.8	24		
CORK AIRPORT	41.9	47	8.7	21	5.64	107	39	13.2	24		
SHERKIN ISLAND	56.6	64	14.1	26	6.70	127	46	12.9	19		
CO. DONEGAL											
MALIN HEAD	100.2	109	30.9	8	6.37	148	42	12.9	22 28		
BALLYSHANNON (CATHLEEN'S FALL) LETTERKENNY (MAGHERENAN)	75.7	114 95	32.4 18.5	8 8	5.73	141	38	13.1	23		
CO. DUBLIN	13.1	73	10.5								
DUBLIN (PHOENIX PARK)	91.5	125	17.3	25	5.14	113	35	11.0	24		
DUBLIN AIRPORT	62.7	110	11.8	25	5.56	110	38	12.4	29		
CASEMENT AERODROME	106.9	155	15.5	25	5.65	118	38	12.5	24 29		
DUBLIN (MERRION SQUARE)	70.9	111	12.8	25							
CALMAY (UNITY COLL)	93.8	93	25.7	15	6.26	132	42	13.6	22		
GALWAY (UNIV.COLL.) MAAM VALLEY	219.5	93	62.1	8	0.20	132	42	10.0	22		
CONNEMARA NATIONAL PARK	193.3	146	43.5	8							
BALLYGAR	77.6	84	14.9	18							
CO. KERRY											
VALENTIA OBSERVATORY	91.9	82	12.6	1	4.89	109	33	12.8	19 24		
ARDFERT (LISCAHANE)	131.5		27.5	18	5.26		38	12.9	19		
CO. KILKENNY KILKENNY	64.1	90	11.0	17	5.96	132	41	13.4	23		
CO. LEITRIM	0 2	'	2.1.10	* '	3.23			20.1			
BALLINAMORE	131.9	129	24.8	18	5,59	133	37	11.9	24		
CO. LIMERICK											
MOUNT RUSSELL	89.9		17.5	2							
CO. LOUTH	82.2	111	20.0	18							
ARDEE (BOHARNAMOE) CO. MAYO	02.2	111	20.0	10							
BELMULLET	137.4	146	32.9	8	5.70	123	38	13.4	22		
STRAIDE	122.9	122	29.8	17	5.38			12.8	23		
CONNAUGHT AIRPORT	143.3		19.1	15	5.32		36	12.6	22		
CO. MEATH	400 #	4.65									
WARRENSTOWN	128.5	165	24.4	20							
CO. MONAGHAN CLONES	110.1	128	16.9	7	5.53	136	37	11.9	23		
CO. OFFALY	22012	120	10.5	,	3,33	250	0,	11.5	20		
BIRR	72.9	93	14.0	17	5.59	135	38	12.5	24		
DERRYGREENAGH	45.0	60	6.7	30							
CO. SLIGO			21.5	•							
ARDTARMON CO. TIPPERARY	140.9		36.7	8							
FETHARD (PARSONSHILL)	58.6		10.0	7							
CO. WATERFORD	30.0		2010	·							
WATERFORD (TYCOR)	33.9	43	5.5	26							
DUNGARVAN (CARRIGLEA)	60.4		12.4	19	5.78		38	13.0	24		
CO. WESTMEATH		0.5	ο -	2.0		100	4.4	10.5			
MULLINGAR II	67.1	81	8.5	30	6.05	138	41.	12.6	24		
CO. WEXFORD JOHNSTOWN CASTLE	46.2	56	7.5	31	6.16	112	42	12.9	24		
ROSSLARE	55.6	78	17.7	25	6.94	119	47	13.4			
CLONROCHE	73.5	77	14.3	25	6.10	118	41	12.5			
JOHN F. KENNEDY PARK	68.0	83	17.0	25	5.95	120	40	12.2	23		
	:				·		·				

TABLES

County /	N	/EA	THI	ER -	<u> </u>	lo. oi	F DA'	YS WIT	Ή	Mean 0900 Soil Temperatures (°C)				
Station	Rain days	Wet days	Air frost	Ground frost	Snow	-Snow lying	Hail	Thunder	Fog	10cm	20cm	30cm		
CO. CLARE														
SHANNON AIRPORT CARRON	19 21	11 17	0	0	0	0	0	1	3	17.0 16.1	17.6	18.0 16.8		
CO. CORK	18	14	0	0						16.0	15 Ω	16.5		
FERMOY (MOORE PARK) CORK AIRPORT	18	11	0	0	0	0	0	0	9	15.6		17.3		
SHERKIN ISLAND CO. DONEGAL	18	13	0	0						17.0		17.4		
MALIN HEAD	17	12	0	0	0	0	0	3	1.	15.1	15.6	16.2		
BALLYSHANNON (CATHLEEN'S FALL) LETTERKENNY (MAGHERENAN)	20 21	17 13	0											
CO. DUBLIN DUBLIN (PHOENIX PARK)	22	16	0	0										
DUBLIN AIRPORT	19	12	0	ő	0	0	1	5	8	15.9	15.6	15.7		
CASEMENT AERODROME	18	15	0	0	0	0	0	5	3	1,5.1	15.7	16.4		
DUBLIN (MERRION SQUARE) CO. GALWAY	18	12	0											
GALWAY (UNIV.COLL.)	22	17	0	2										
MAAM VALLEY CONNEMARA NATIONAL PARK	23	17 22	0	0										
BALLYGAR	25	17	0	0										
CO. KERRY		- '								T. P. C.				
VALENTIA OBSERVATORY	26	22	0	0	0	0	0	1	3	15.9	16.2	17.2		
ARDFERT (LISCAHANE)	25	20	0	0				Į						
CO. KILKENNY		4.0	0	2		0				166	17.1	17.9		
KILKENNY CO. LEITRIM	20	12	٧ ا	2				ĺ		1.0.0	17.1	17.5		
BALLINAMORE	24	17	0	0						15.3	16.0	16.5		
CO. LIMERICK	25	1.0	0	0		1				14.2	15.3			
MOUNT RUSSELL CO. LOUTH	25	16	U	U						19.2	13.3			
ARDEE (BOHARNAMOE) CO. MAYO	18	12	0	0						17.0	17.3	17.2		
BELMULLET	21	17	0	0	0	0	0	5	2	16.1	17.4	18.6		
STRAIDE	20	16	0	5	İ					15.8				
CONNAUGHT AIRPORT	23	20	0	0	0	0	0	1	15	14.6	14.5	15.5		
WARRENSTOWN	19	14	0	0					Ì	16.3	16.7	17.8		
CO. MONAGHAN														
CLONES	24	14	0	0		0				16.0	16.2	17.0		
CO. OFFALY BIRR	18	12	0	0		0				16.0	16.9	17.8		
DERRYGREENAGH	19	13	ō	1		*								
CO. SLIGO			!											
ARDTARMON	22	19	0	0										
CO. TIPPERARY FETHARD (PARSONSHILL)	21	14	0	0						15.1	16.2			
CO. WATERFORD	17	13	0	-					1					
WATERFORD (TYCOR) DUNGARVAN (CARRIGLEA)	20	12	0	0							16.8	17.2		
CO. WESTMEATH		_												
MULLINGAR II CO. WEXFORD	22	18	0	0		0				15.9	16.5	17.8		
JOHNSTOWN CASTLE	17	14	0	0			İ			16.3	16.2	16.7		
ROSSLARE	18	1.3	.0	0	0	0	0	3	3	16.9		17.8		
CLONROCHE	17	16	0	3						15.1		16.9		
JOHN F. KENNEDY PARK	1.6	15	0	0			1	***		16.3	16.5	17.4		

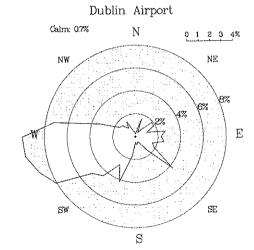
County /	Mean	Max. 16	l-min	mean	M:	ax. Gi	ıst	Davs	with	Hours with
Station	speed		peed	date/hour			date/time			gale gusts
CO. CLARE										
SHANNON AIRPORT CO. CORK	6.9	200°	21	1/13	2700	30	31/1537	0	0	O
CORK AIRPORT	8.0	210°	25	1/17	2100	39	1/1619	0	1	4
MALIN HEAD CO. DUBLIN	10.2	180°	28	31/04	180°	42	31/0329	0	3	16
CASEMENT AERODROME	7.2	2000	24	9/10	200°	35	31/0754	0	1	1
DUBLIN AIRPORT CO. KERRY	7.8	2100	23	9/12	210°	34	9/1118	0	1	1
VALENTIA OBSERVATORY CO. KILKENNY	7.4	210°	22	1/12	200°	32	1/1254	0	0	0
KIEKENNY CO. MAYO	5.4	1800	22	1/16	190°	31	1/1544	0	0	0
BELMULLET	10.6	200°	31	8/23	200¢	52	8/2250	0	5	28
CONNAUGHT AERPORT	7.1	200°	22	31/04	170° 200°	32 32	1/1449 31/0318	0	0	0
CO. MONAGHAN										_
CLONES CO. OFFALY	5.7	30 0 °	19	2/17	1100	29	25/2029	0	0	0
BIRR CO. WESTMEATH	5.6	180°	17	1/16	180°	28	1/1520	0	0	0
MULLINGAR 13 CO. WEXFORD	5,3	1900	16	1/14	190°	25	1/1517	0	0	0
ROSSLARE	8,6	210° 40°	23 23	1/17 25/10	240°	34	2/0259	0	1	1





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Valentia Observatory



FREQUENCY OF WIND DIRECTION

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Waterford

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NOTES ON THE TABLES

A. General

- 1. 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.)
- 2. At all stations daily rainfall totals refer to the 24hour 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.
- 3. 'Raindays' and 'weldays' are days during which the total rainfall is not less than 0.2mm and 1.0mm respectively.
- 4. 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.)
- 5. 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).
- 6. 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.)
- 7. Mean soil and earth temperatures are based on readings taken at 0900UTC.
- 8. A gale is a mean wind over a 10 minute period of 34 knots or more. A gate 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.
- 9. 'e' denotes that the value is calculated using one or more estimated readings.
- 10. Data from Northern Ireland is kindly provided by the Belfast Weather Centre.

B. Agmet

- 11. 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
- 12. Soil moisture deficits and surpluses are computed from the differences hatween rainfall and actual evapolranspiration (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 runoff 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.
- 13. 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).
- 14. Global solar radiation values are given in MJ/sq.m. correct to two decimal places (3.6MJ=1kWh).

C. Laboratory

- 15. 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.
- 16. Air sample data are given in microgrammes per cubic metre, electrical conductivity in micro-Siemens per centimetre and pH in pH units.