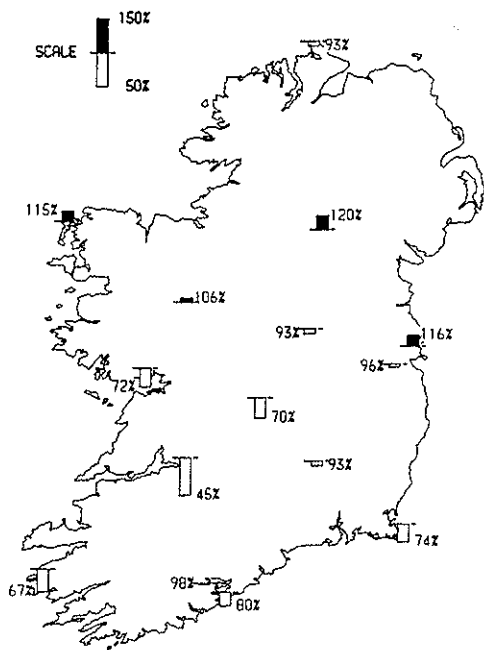


# Warm and humid but sunshine down

August had spells of pleasant weather this year although sunshine amounts were below normal. For the first nine days of the month winds were westerly or northwesterly and while mean air temperatures were about normal for the bank holiday weekend they fell below normal between 4th and 9th. On the 10th the wind shifted around to the south bringing the warm and often humid conditions that lasted till Friday the 21st, causing problems for farmers. For the following few days, up until the 26th, northerly winds prevailed, bringing a welcome return to cooler, fresher weather. From the 27th to the 29th a high pressure area moved in over Ireland from the Atlantic with a mild and slackening westerly airflow. Towards the end of the month the centre of the high shifted to the east and the resultant southeasterly winds from the continent brought extensive thunderstorm activity on the evening of Monday the 31st.



Rainfall percentage of (1951-1980) normals

## AIR TEMPERATURES ABOVE NORMAL

Mean maximum temperatures ranged from 16.9°C at Malin Head to 20.1°C at Kilkenny; these compare with normal values of 16.5 to 19.5°C. Days were cool between 4th and 9th but rose a little above normal between 10th and 14th. The weekend of the 15th to the 17th was the warmest of the month with temperatures in excess of 23.5°C being recorded at some stations on each of the three days. Dublin Airport reported 26.6°C on 16th, its second highest August air temperature since recording began there in 1940. While daytime temperatures fell on 18th they still remained well above normal until 21st. Maximum temperatures were mostly below normal between 21st and 26th but were up to normal or above for the remainder of the month.

Lowest night-time temperatures were recorded between 4th and 7th when slight ground frost was observed at a few stations. The nights of 10th and 25th were also cool. Night-time temperatures were well above normal between 11th and 20th and were above 16°C at many stations on 16th when Dublin, Birr and Kilkenny recorded mean daily temperatures of 21°C or more. From 28th to 30th minimum temperatures were again above normal. Mean minimum temperatures for August ranged 10.6°C to 12.7°C, again about half a degree above normal. Mean air temperatures for the month varied from 16.1°C at Shannon Airport to 14.5°C at Malin Head and were between 0.2°C to 0.9°C above normal.

## RAINFALL

There was heavy rain for a time during

*(Continued on back page)*

AUGUST 1987

# Distribution of Daily Values

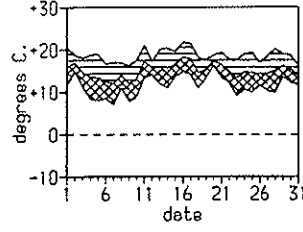
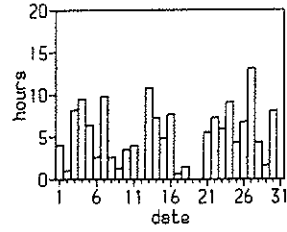
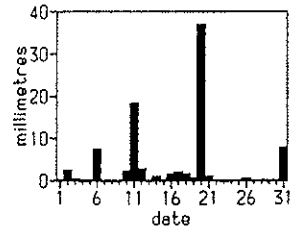

  
 Max
   
 Mean
   
 Min

### Rainfall

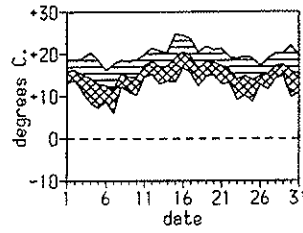
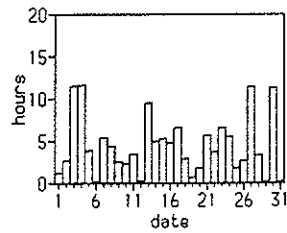
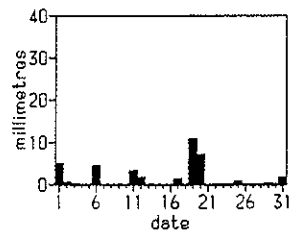
### Sunshine

### Temperature

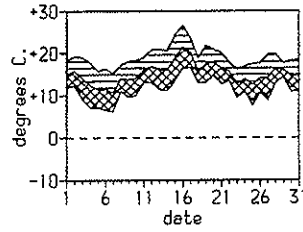
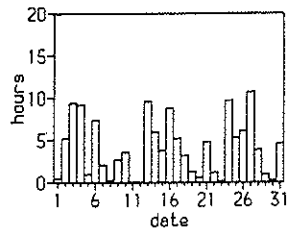
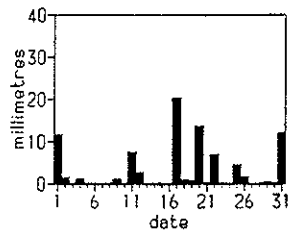
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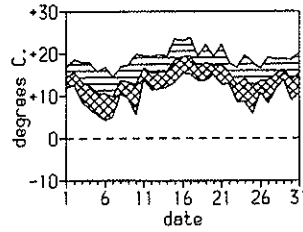
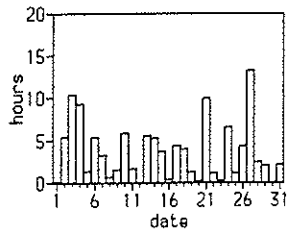
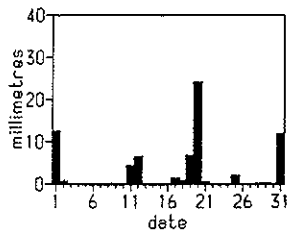
SHANNON



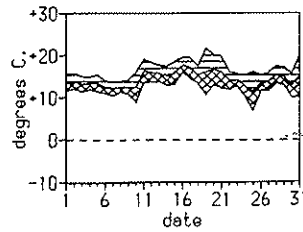
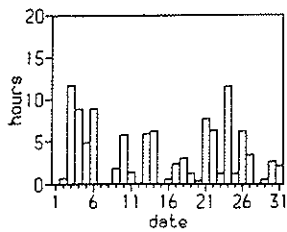
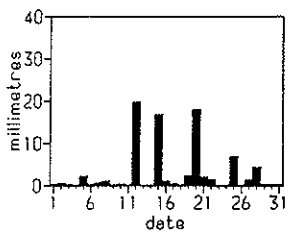
DUBLIN



MULLINGAR



MALIN HEAD



AUGUST 1987

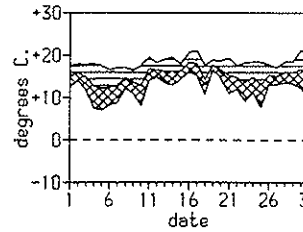
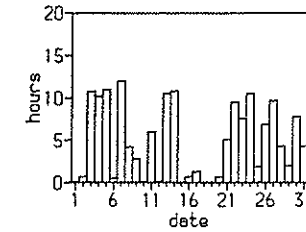
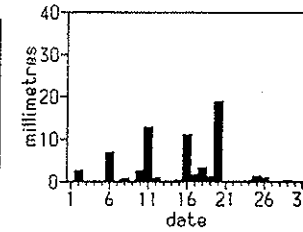

  
 Max
   
 Mean
   
 Min

### Rainfall

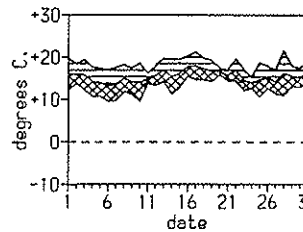
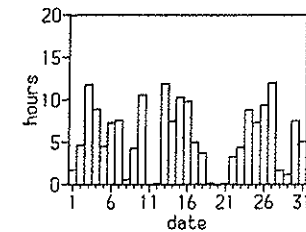
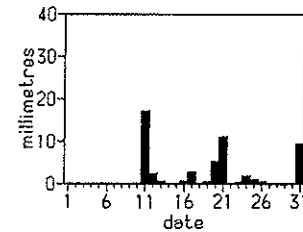
### Sunshine

### Temperature

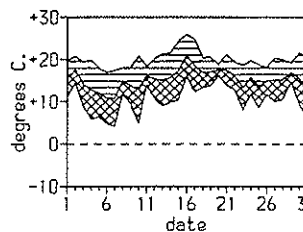
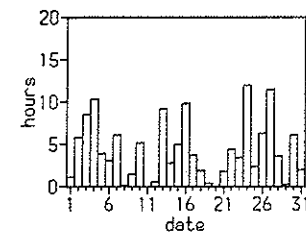
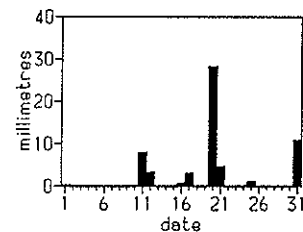
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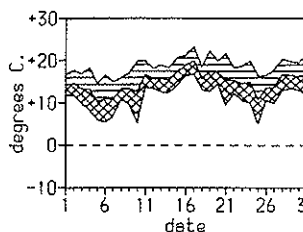
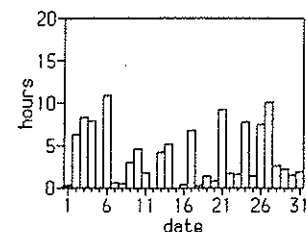
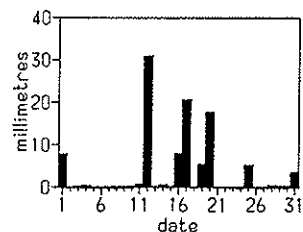
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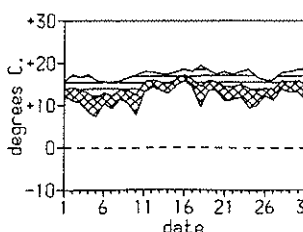
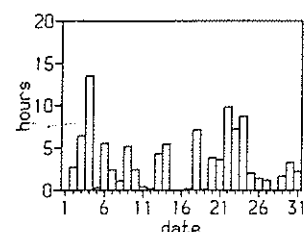
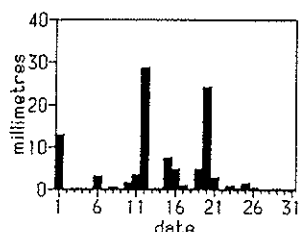
KILKENNY



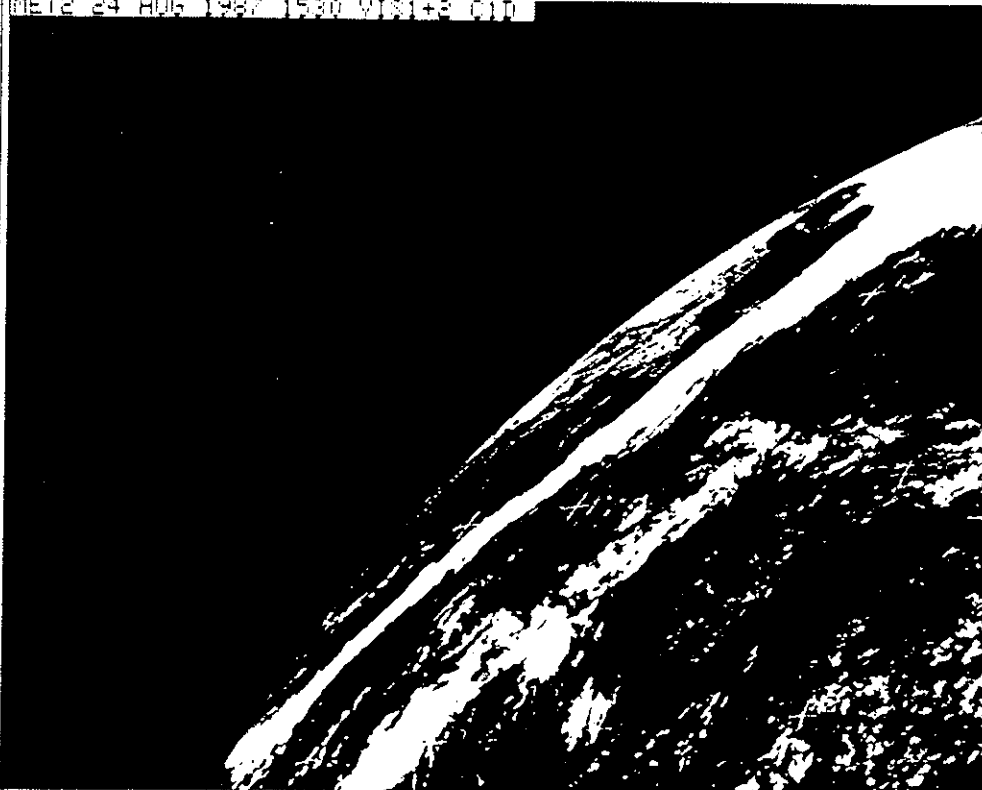
CLONES



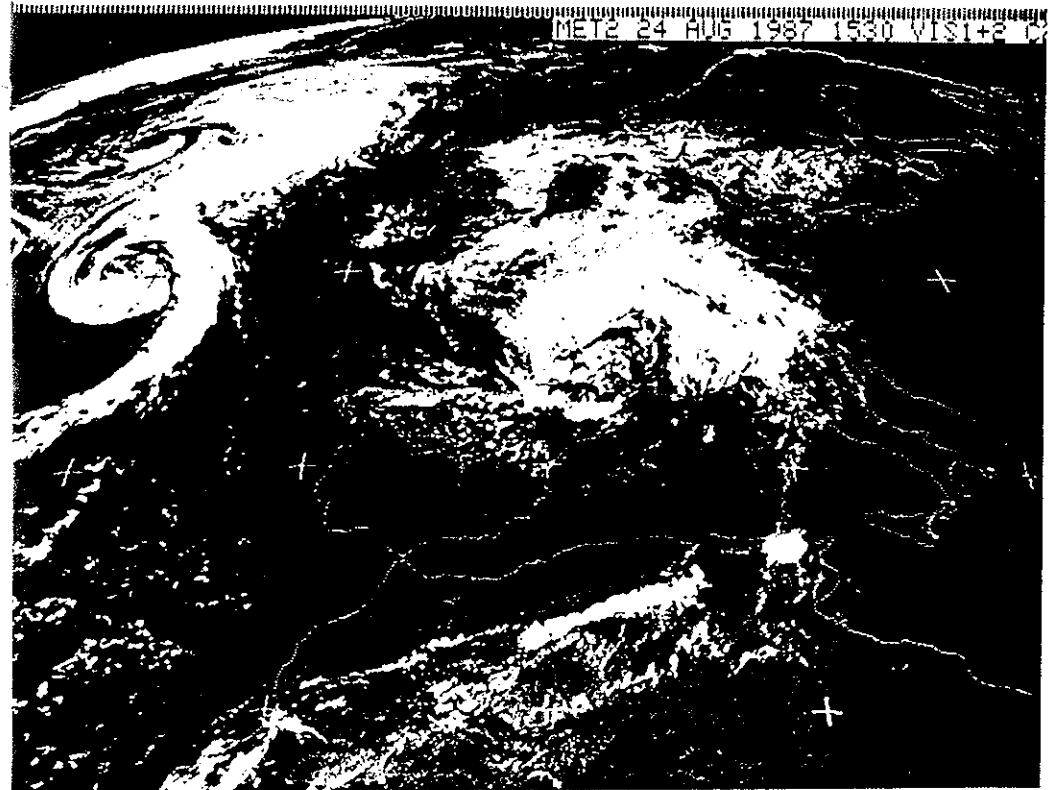
BELMULLET



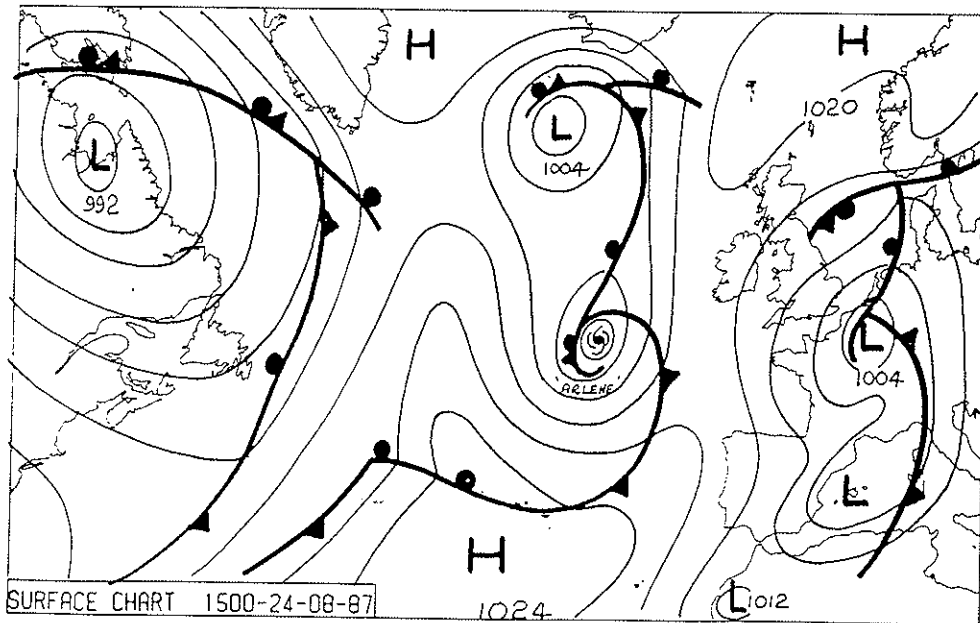
MET2 24 AUG 1987 1530 VIS1+2 CID



MET2 24 AUG 1987 1530 VIS1+2 CID



The satellite picture was taken by METEOSAT at 1530 on the 24th of August and shows 'Arlene' in mid-Atlantic.



### ARLENE'S NEAR-MISS ON CHARLEY'S 1ST ANNIVERSARY

When satellite pictures on the afternoon of Thursday 20th showed that the tropical storm Arlene had continued to strengthen and had developed the characteristic 'eye', it was upgraded to hurricane status by the National Hurricane Centre in Miami. With that, Arlene became the first hurricane of the 1987 season.

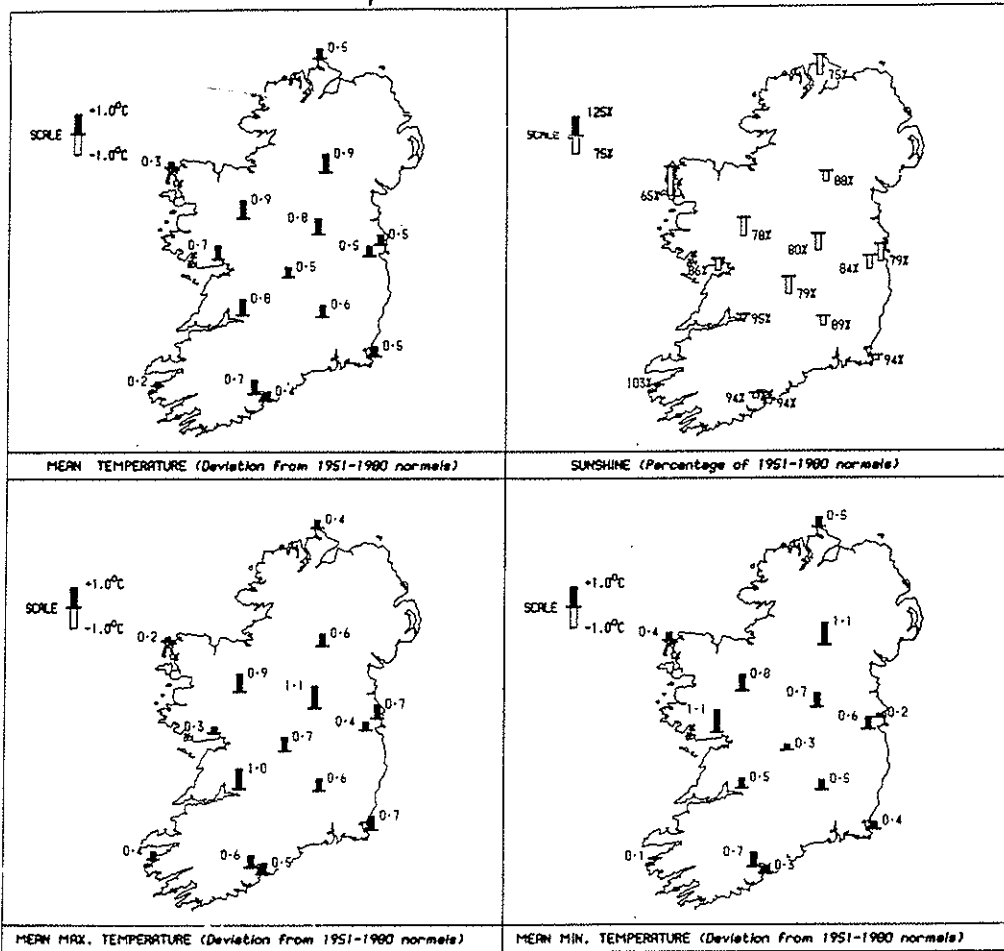
The season extends from July to November, and the practice has long been that each storm is given a name, for ease of reference. Initially only girl's names were used but that was changed some years ago. Twenty six names, one for each letter of the alphabet, are selected in advance and assigned as storms develop. The record number of Atlantic hurricanes is eleven in one year so the list of names is always adequate. The names of major storms are not used again for at least ten years.

Hurricanes develop over the warm oceans near the equator and generally follow a curving track heading westwards at first before turning north and

sometimes east before weakening. Any hurricane that does head eastwards loses its strength over the cooler waters of the North Atlantic, but it can happen that the remains of a hurricane will spawn a further storm in higher latitudes. This is what happened in the case of Hurricane Charley last year, but by that time the storm does not have tropical characteristics, so it's not a proper hurricane.

The storm associated with Hurricane Charley arrived over Ireland on Monday 25th August last year. It brought storm force winds, set new rainfall records and caused serious flooding, particularly in parts of Dublin and Wicklow. Arlene looked at one stage as if it was going to follow in Charley's footsteps, and on the same date too. From a start-point in mid-Atlantic southeast of the Azores, Arlene described a wide clockwise curve. By Monday 24th the storm was over the North Atlantic, only 350 miles west-southwest of Kerry. Fortunately the winds in the upper atmosphere were blowing from a northwesterly direction and diverted Arlene's remains to the southeast, towards Spain and Portugal, causing thunderstorms over the Algarve instead of flooding in Ireland.

# August 1987 Totals, Means and Extremes



Station	Rainfall			Air Temperature					Sunshine		Wind		Number of days with									
	Total	Most in a Day Amount (Date(s))	Means of Max Min	Mean	Extreme Temperature				Total	Most in a Day Amount (Date(s))	Max Gale Gust	Rain*	Snow	Air Frost	Hail	Thunder	Fog	Gale Gusts				
					Highest Date(s)	Lowest Date(s)	Highest Date(s)	Lowest Date(s)														
Belmullet	101.2	28.8	12	17.4	11.8	14.6	19.5	18	7.3	5	102.1	13.5	4	46	21	-	-	-	-	-	2	2
Birr	52.9	22.9	20	19.5	10.7	15.1	25.3	16	2.6	7	112.5	11.9	27	37	13	-	-	-	-	-	-	1
Cahircoheen	65.7	18.9	20	18.4	12.0	15.2	21.4	30	7.0	5	152.2	12.0	7	41	15	-	-	-	-	-	-	2
Cesement	67.3	14.1	17	19.2	10.8	15.0	25.9	16	5.1	7	129.1	11.6	27	41	14	-	-	-	-	2	2	2
Cleremorris	98.4	38.5	12	19.0	10.7	14.9	23.1	19	5.0	7	101.8	12.6	4	39	14	-	-	-	-	-	2	1
Clones	102.9	31.0	12	18.7	11.2	15.0	23.4	17	5.0	25	110.9	10.9	6	36	16	-	-	-	-	1	4	1
Cork Airport	88.1	37.0	20	18.7	11.6	15.2	21.7	16	7.0	7	152.3	13.1	27	43	16	-	-	-	-	-	10	3
Dublin Airport	87.1	20.2	17	19.1	11.4	15.3	26.6	16	6.3	7	127.9	10.7	27	-	17	-	-	-	2	4	-	-
Galway	65.4	13.3	16	18.8	12.2	15.5	21.7	19	7.3	5	133.6	12.9	27	35	11	-	-	-	-	-	1	1
Kilkenny	61.1	28.2	20	20.1	10.6	15.4	26.0	16	4.2	7	132.9	12.0	24	-	11	-	-	-	-	-	3	-
Malin Head	62.1	19.9	12	16.9	12.0	14.5	21.7	19	6.9	25	108.3	11.7	3	43	21	-	-	-	-	-	3	6
Mullingar	73.2	24.1	20	19.0	10.6	14.8	23.8	17	4.3	6	113.9	13.3	27	-	14	-	-	-	-	-	4	-
Roche's Point	61.4	21.9	20	18.6	12.4	15.5	22.0	1	8.5	7	155.2	13.3	27	41	12	-	-	-	-	-	3	4
Rosslere	54.1	17.2	11	18.5	12.7	15.6	21.7	28	9.6	10	171.4	12.0	27	36	13	-	-	-	-	-	7	2
Shannon Airport	37.7	10.9	19	20.0	12.1	16.1	24.8	15	5.9	7	138.6	11.6	4	-	11	-	-	-	-	-	2	-

NOTES: Rainfall in millimetres. Temperatures in Degrees Celsius. Sunshine in Hours and Wind in Knots. Gale = Gust of > 33.5 knots. \* = days with 0.2mm or more

## SUMMER 1987

Station	Rainfall		Air Temperature				Sunshine		Wind		Number of days with					
	Total	Most in a Day Amount (Date(s))	Mean	Extreme Temperature		Total	Most in a Day Amount (Date(s))	Max Gale Gust	Max Gale Gust	Rain*	Snow	Air Frost	Hail	Thunder	Fog	Gale Gusts
				Highest Date(s)	Lowest Date(s)											
Belmullet	280.3	44.9 10 Jul	16.2	19.5 13 Jul	4.0 14 Jun	14.3	326.2	46	62	-	-	-	-	-	7	
Birr	194.1	27.3 11 Jun	18.5	25.3 18 Aug	2.6 7 Aug	14.5	299.7	37	47	-	-	-	2	3	2	
Cahircoheen	245.5	28.2 14 Jul	17.4	22.2 22 Jul	5.5 15 Jun	14.6	405.1	41	59	-	-	-	1	6	8	
Cesement	213.7	16.7 16 Jul	18.2	25.9 16 Aug	1.7 13 Jun	14.2	343.9	47	49	-	-	-	-	3	8	
Cleremorris	223.4	38.5 12 Aug	17.7	23.1 19 Aug	2.2 12 Jun	13.9	272.8	39	50	-	-	-	1	5	3	
Clones	269.8	31.0 12 Aug	17.7	24.4 5 Jul	2.7 10 Jun	14.1	304.9	36	52	-	-	-	-	6	3	
Cork Airport	252.6	37.0 20 Aug	17.8	22.0 31 Jul	3.7 13 Jun	15.2	431.3	44	44	-	-	-	2	27	9	
Dublin Airport	232.2	20.2 17 Aug	18.2	26.6 16 Aug	2.9 13 Jun	15.0	395.5	41	51	-	-	-	1	3	5	
Galway	215.7	14.9 5 Jun	17.8	22.3 10 Jul	5.1 13 Jun	14.2	386.8	43	42	-	-	-	-	6	3	
Kilkenny	222.1	31.8 16 Jul	18.8	26.0 16 Aug	3.7 13 Jun	14.8	357.0	39	42	-	-	-	1	3	4	
Malin Head	218.5	25.2 10 Jul	15.7	22.2 13 Jul	4.6 18 Jun	13.9	368.4	49	63	-	-	-	-	6	18	
Mullingar	245.0	24.1 20 Aug	17.9	24.7 5 Jul	2.6 13 Jun	14.8	334.7	37	53	-	-	-	-	7	1	
Roche's Point	163.8	21.9 20 Aug	17.7	22.5 28 Jul	6.2 13 Jun	14.8	447.8	46	35	-	-	-	-	14	10	
Rosslere	146.8	17.2 11 Aug	11.8	22.9 31 Jul	6.2 9 Jun	14.6	492.6	46	38	-	-	-	-	21	9	
Shannon Airport	188.6	23.9 3 Jun	18.9	25.5 10 Jul	4.4 15 Jun	15.3	364.8	43	50	-	-	-	-	5	3	

NOTES: Rainfall in millimetres. Temperatures in Degrees Celsius. Sunshine in Hours and Wind in Knots. Gale = Gust of > 33.5 knots. \* = days with 0.2mm or more

(Continued from front page)

the 12th, 19th-20th and to a lesser extent on 1st. In the warm spell of 15th to 17th thunderstorms affected some areas and contributed to the fatality which occurred during the road races at Dunrod. Thunderstorms were again a feature on the evening of the 31st. Highest daily fall was the 38.5 millimetres at Claremorris on 12th. On 20th, Cork Airport had a 37 millimetre total while there was over 20 millimetres in the Dublin area on 17th. On 24th the remains of hurricane 'Ariane' were some 20 degrees west of Ireland but, fortunately it weakened and slipped harmlessly south; thus the 1st anniversary of the hurricane Cherley episode was spent in a northwesterly airflow with scattered showers.

Amounts of rain were small between 2nd and 5th, 7th and 9th, 13th and 14th, 22nd to 24th and 26th to 30th. The number of days with totals of 1 millimetre or more ranged from 7 to 13. Totals for the month varied from over 101 millimetres at Belmullet (115% of normal) to 38 millimetres (45% of normal) at Shannon Airport, but then the rain of 12th and 19th-20th contributed nearly 58 millimetres to Belmullet's total while Shannon Airport had less than 20 millimetres.

Highest totals were recorded in north Connaught and in parts of Ulster while totals were lowest in west Munster and parts of the south and west of Leinster. At Shannon Airport, Galway, Cahirciveen and Birr it was the driest August since 1981 when most areas had between 20% and 50% of normal rainfall.

## SUNSHINE

While Saturday 1st the start of the bank holiday, was dull, the 2nd was brighter, except near the south and north coasts and during 3rd and 4th there was a good deal of sunshine. Belmullet had the sunniest day of the month with 13.5 hours on the 4th. Many stations also had a good deal of sun on 13th, 24th and 27th while in addition to 1st, the 12th, 19th and 29th were notably dull.

Totals for the month ranged from 171 hours at Rosslare to 102 hours at Claremorris and Belmullet. Indeed Belmullet had its dullest August in some 30 years of record with only 65% of normal sunshine. Generally between 75% and 95% of normal sunshine was recorded but Cahirciveen (Valentia Observatory) had 103% making it the only station with above normal sunshine for the month.

## FOG

In warm sector conditions we had hill and coastal fog at times, notably between 17th and 21st while there was also fog (mainly radiation fog) early on the 10th and 25th in quite a number of places.

## WIND

Windiest days were 12th, 20th and 26th but highest gusts were only in the range 35 to 46 knots (1 knot = 1/17 miles per hour).

# Summer of 1987

June was dull, wet and cool but, while July and August were changeable, there were some good spells of dry, sunny, quite pleasant weather. Mean air temperatures ranged from normal to slightly above over most of the country. The predominance of northwesterly winds during the summer kept northern and northwestern coastal areas somewhat cooler. While daytime maxima ranged from 0.3°C above normal to 0.4°C below normal, nighttime minima were normal or above. Dublin Airport recorded the highest temperature of the summer with 26.6°C on the 16th of August. But some of the lowest summer temperatures for 10 to 12 years were recorded in June.

Rainfall totals for the summer ranged from 260mm to 280mm (115% to 122% of normal) in the north and northwest, to between 145mm and 165mm (80% to 90% of normal) along the south and southeast coasts. There is a significant difference between the totals recorded at Roche's Point (164mm) and nearby Cork Airport (253mm), a difference that also shows up in a comparison of the totals from Rosslare and Kilkenny. These differences reflect the fact that much of this summer's total fell on a few particular days with heavy, sometimes thundery, rain.

It was another dull summer, unfortunately. Sunshine amounts nowhere exceeded 88% of normal, and where as low as 67% at Claremorris. This summer was an improvement on the very dull summers of 1980 and 1981, except at Casement Aerodrome, where it was the dullest summer since records began there in 1964.