

COLD SNAP PRODUCES WIDESPREAD SNOWFALLS

The Atlantic influence dominated the weather for the first nine days of the month but on Saturday the 10th a depression centered near Belmullet slipped southeastwards and allowed a bitterly cold easterly airflow to prevail between the 11th and the 16th. This airflow was the cause of the blizzard conditions experienced during that week. However temperatures rose above freezing on Thursday 15th and the snow thawed over the next few days due to a mild southerly airflow reasserting the Atlantic influence. From the 20th on it was dry with some fog and frost, weather typical of the ridge of high pressure which dominated during that period.

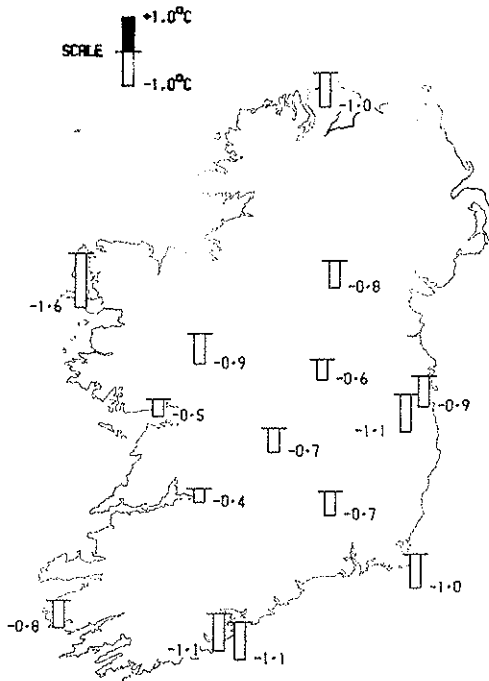
COLD SPELL

Mild southerlies alternated with cool northwesterlies during the first nine days of the month but the strengthening of the continental high pressure area to the east of Ireland deflected the Atlantic weather systems southwards during 10th. A bitterly cold easterly airflow developed on the 11th and temperatures fell below zero for a three day period. There were widespread snowfalls (in all but some western areas) between 11th and 14th, the heaviest falls occurring on the 14th. Quite a number of places in the east, south and midlands recorded over 10 centimetres of snow and there was drifting of over 1.5 metres. There were severe frosts and Roche's Point had a temperature of -7.2°C its lowest temperature in over a hundred years recording. The heavy snow caused transport hold-ups as major roads were closed, Dublin Airport was closed for a time and it also forced the closure of dozens of schools.

However across mainland Europe conditions were much worse. Temperatures of less than -30°C were recorded in parts of Russia, snow was 77 centimetres thick in the Polish port of Gdansk and a layer of ice two feet thick covered parts of the Baltic sea coast. Many European countries suffered their worst cold spell ever with thousands of villages cut-off and hundreds of people dead.

As winds became more northeasterly late on Wednesday the 14th temperatures rose and remained above or about freezing during 15th and 16th, so that with little or no fresh snow falling, conditions on main roads improved. The thaw continued with a rise in temperatures on 17th and 18th when temperatures reached normal or above (7°C to 9°C), at this stage most of the snow had

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Temperature deviation from (1951-1980) normals

January 1987

Distribution of Daily Values



 Max

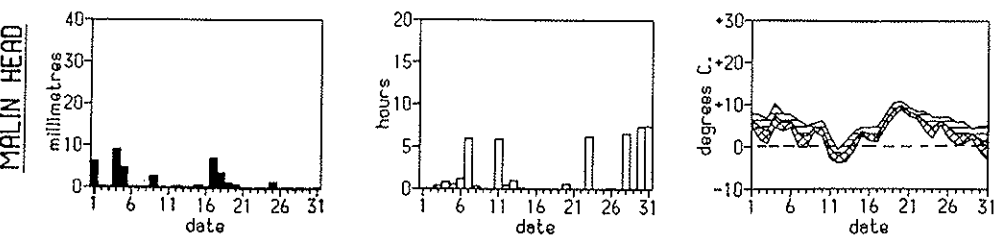
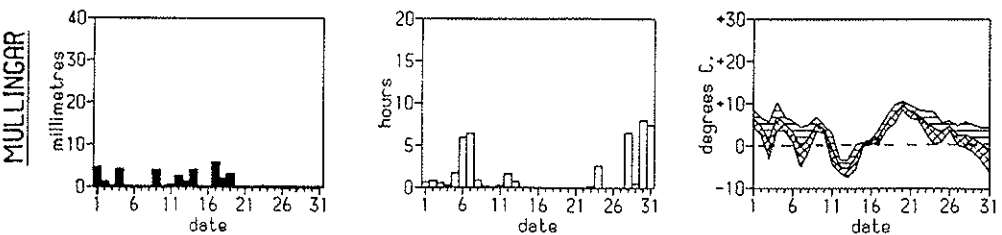
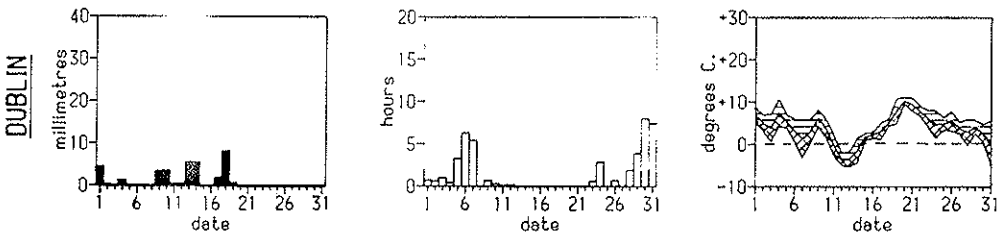
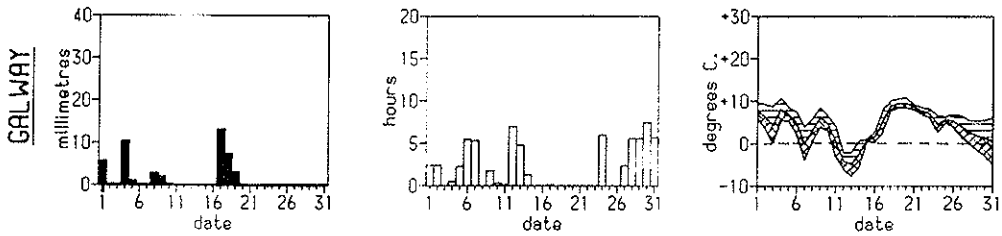
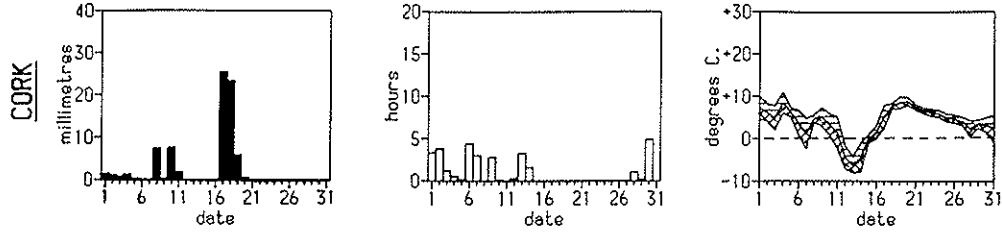
 Mean

 Min

Rainfall

Sunshine

Temperature



January 1987



 Max

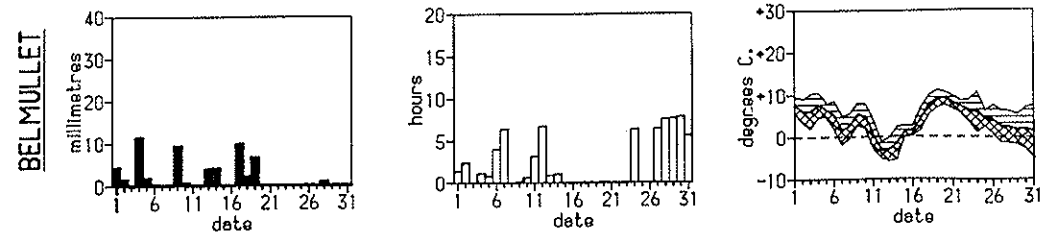
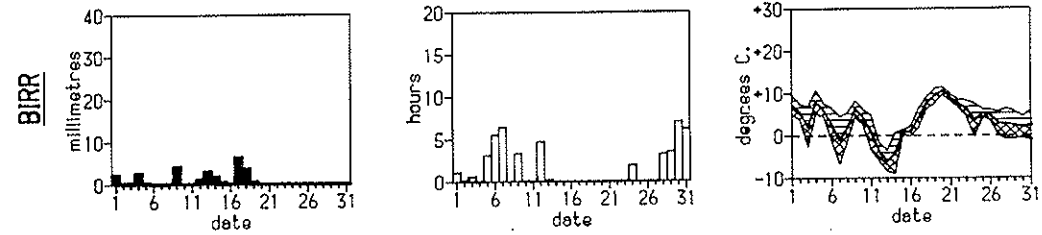
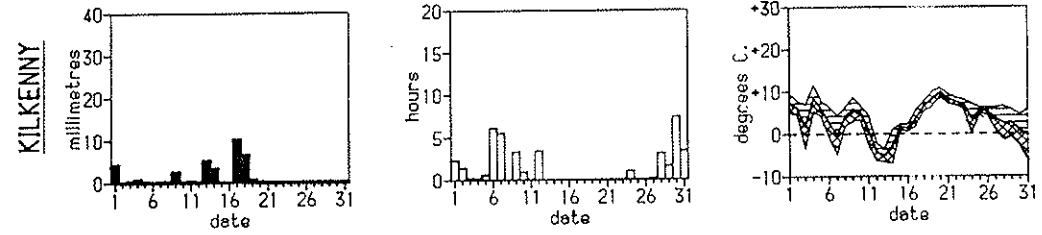
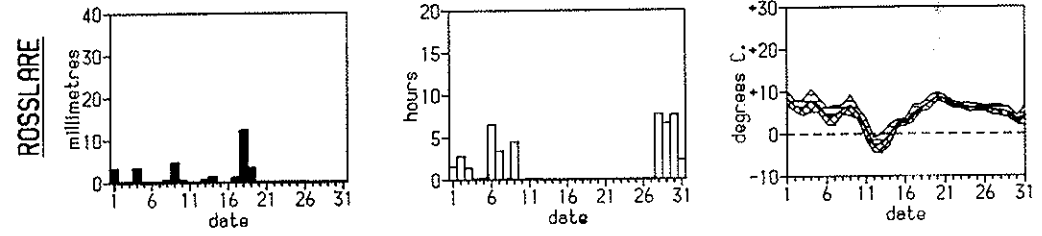
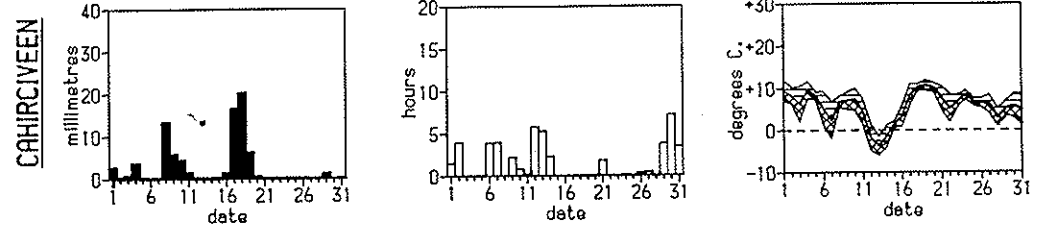
 Mean

 Min

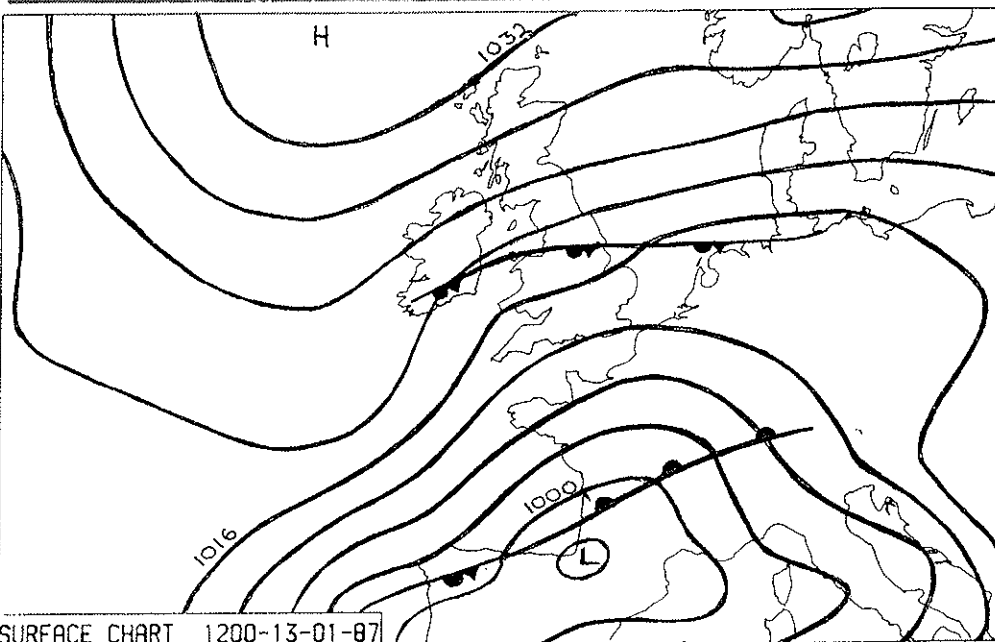
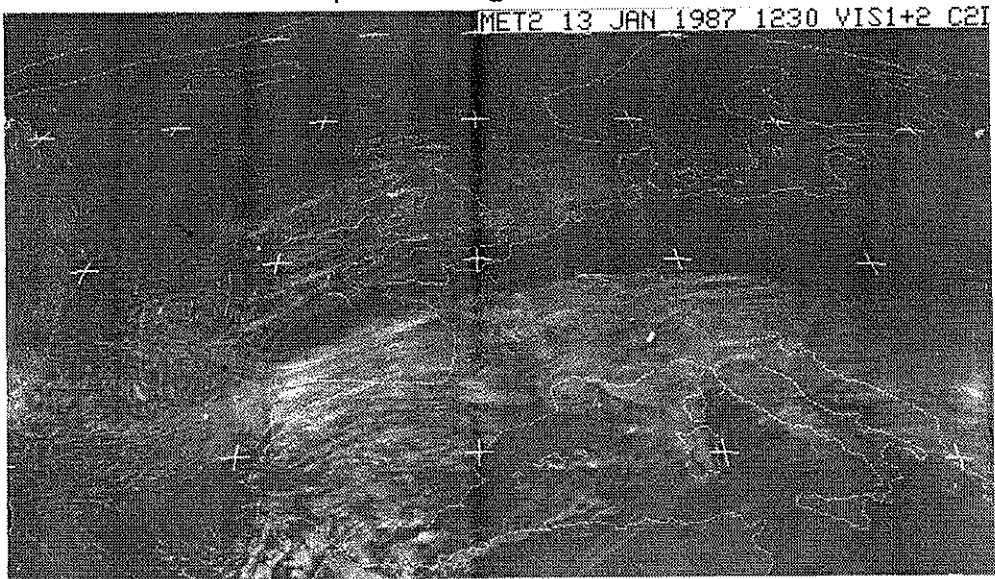
Rainfall

Sunshine

Temperature



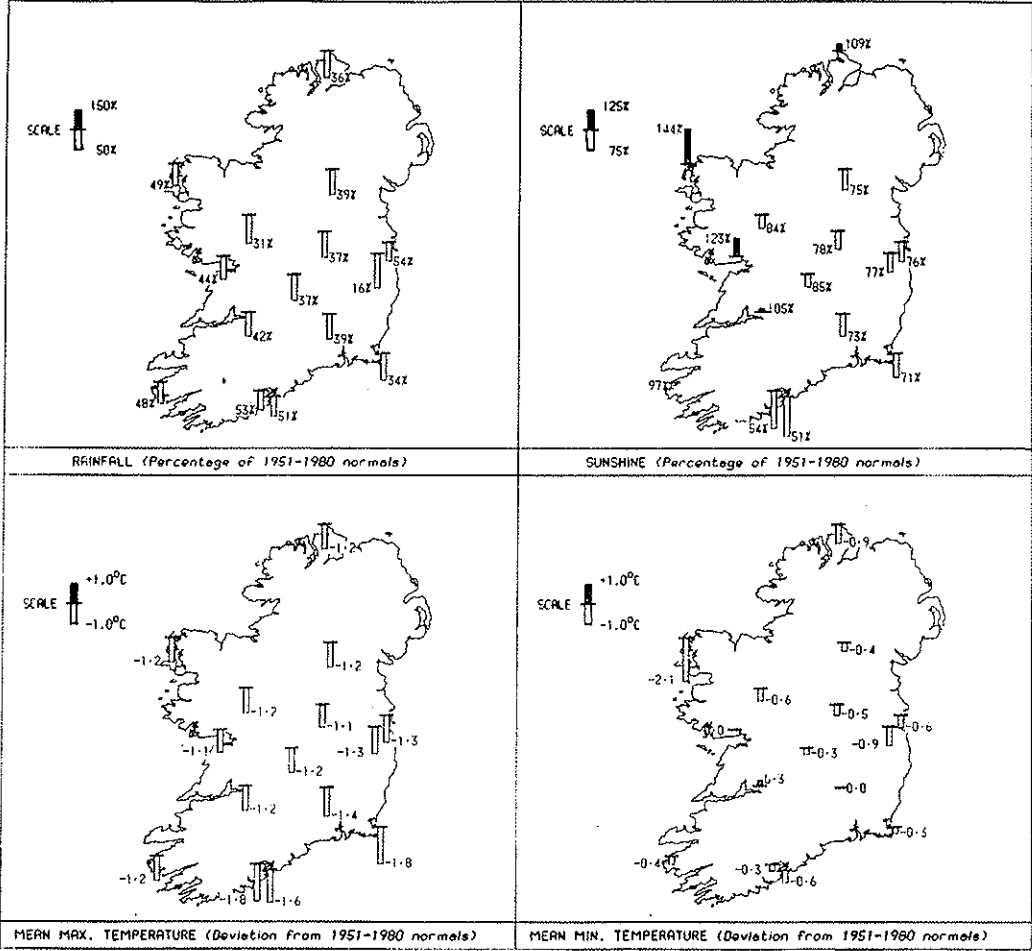
Tuesday 13th, Snowing over most of Ireland



SURFACE CHART 1200-13-01-87

The satellite was taken by the European METEOSAT at 1230 GMT on Tuesday the 13th of January. The synoptic chart shows the weather situation at noon that day as parts of Ireland suffered near blizzard conditions under the influence of a bitterly cold easterly airflow. Air temperatures remained several degrees below zero for the entire day and snowshowers were frequent in the southeast, east and north.

January 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		Extreme Temperature		Total	Most in a Day Amount/Date(s)	Max Gale Gust	Rain*	Snow	Frost	Hail	Thunder	Fog	Gale Gust					
			Max	Min	Highest Date(s)	Lowest Date(s)															
Balmullog	57.8	11.5	4	6.9	1.2	4.1	11.0	19	-5.7	13	69.8	7.8	30	54	15	5	11	1	-	-	8
Birr	27.9	6.4	17	6.1	1.2	3.7	11.4	20	-8.9	14	46.9	7.0	30	38	13	5	14	-	-	1	1
Cahirciveen	78.3	20.3	18	8.0	3.6	5.8	11.9	1,119	-5.9	13	47.1	7.2	30	65	15	4	4	1	-	-	15
Casement	10.3	2.4	1	5.9	0.7	3.3	11.8	21	-7.6	31	42.1	8.1	30	48	10	5	13	1	-	4	10
Claremorris	35.7	5.1	18	5.7	0.6	3.2	10.6	19	-7.8	13	41.1	6.6	30	44	12	4	14	-	-	-	3
Clones	33.9	5.7	9	5.3	0.7	3.0	11.3	20	-8.0	13	35.9	7.5	30	44	12	7	12	-	-	-	3
Cork Airport	77.8	25.5	17	5.8	2.2	4.0	11.0	4	-8.0	13	30.6	4.9	30	41	14	6	7	-	-	8	6
Dublin Airport	36.6	8.2	18	6.0	1.7	3.9	11.1	20	-5.2	13	44.4	8.0	30	43	12	8	7	2	1	4	5
Galway	46.5	13.2	17	6.4	1.9	4.2	10.8	20	-7.7	13	66.6	7.5	30	43	11	4	8	-	-	-	3
Kilkenny	34.7	10.2	17	6.1	1.2	3.7	11.6	4	-7.0	14	40.4	7.4	30	45	12	4	11	-	-	3	4
Malin Head	38.1	9.1	4	6.3	2.2	4.3	11.0	20	-3.9	12	44.7	7.4	31	61	13	5	8	5	-	1	16
Mullingar	33.6	5.9	17	5.4	0.6	3.0	10.6	20	-7.4	13	44.7	8.0	30	43	13	6	11	-	-	1	2
Roche's Point	51.8	20.0	17	6.8	3.4	5.1	12.0	4	-7.2	13	31.7	5.4	30	46	12	4	6	-	-	3	12
Rosslere	32.3	12.4	18	6.4	3.5	5.0	10.6	4	-4.4	12,13	45.0	7.7	28	46	12	4	4	-	-	2	8
Shannon Airport	39.1	9.4	17	6.8	2.5	4.7	11.7	19	-7.2	13	55.1	7.8	30	40	9	5	7	1	-	1	1

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

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gone and only isolated traces remained.

PRECIPITATION

Despite the snowfalls it was a relatively dry month. Rainfall, which includes the rain equivalent of snow, was well below normal everywhere and many parts of the country had the driest January since 1963. Snow affected all areas between 11th and 15th with some light flurries on 10th, 16th and 17th. Thunder was recorded only at Dublin Airport on 12th. Wettest days were Sunday the 4th and the period 17th/18th as the cold snap ended.

TEMPERATURES

Mean maximum temperature was almost 2°C below normal in parts of the south due to the cold spell of the 11th to the 16th and the particularly low maxima of 12th/13th when values were below freezing almost everywhere. Minimum values of -4°C to -9°C during the snow, fairly widespread frosts on 7th and on the last three days of the month were offset by the high minima immediately following the cold spell (see temperature graphs). Only at Belmullet were minimum temperatures well below normal.

The resultant mean temperature for the month varied between -0.4°C below normal at Shannon Airport and -1.6°C below at Belmullet but was generally around 1°C below normal. The lowest air temperature was -8.9°C read at Birn on the 14th and the highest was 12.0°C recorded at Roche's Point on the 4th.

EXTREMELY DULL IN THE SOUTH

Monthly totals of sunshine ranged from 30.6 hours at Cork Airport to 69.8 hours at Belmullet. It was fairly sunny in the period 5th to 7th and at the end of the month but the period 15th to 23rd had virtually no sun at all. Percentages of normal ranged from 144% at Belmullet to just over 50% on the south coast, and were generally below normal.

The day with the most sunshine was Friday the 30th when Casement Aerodrome (8.1 hours), Dublin Airport (8.0 hours) and Shannon Airport (7.8 hours) all had their sunniest January day ever.

FOG

On 24th/25th and on 28th there was patchy but persistent fog in some areas while in the period 17th to 21st there was some hill and coastal fog chiefly on the south coast.

WIND

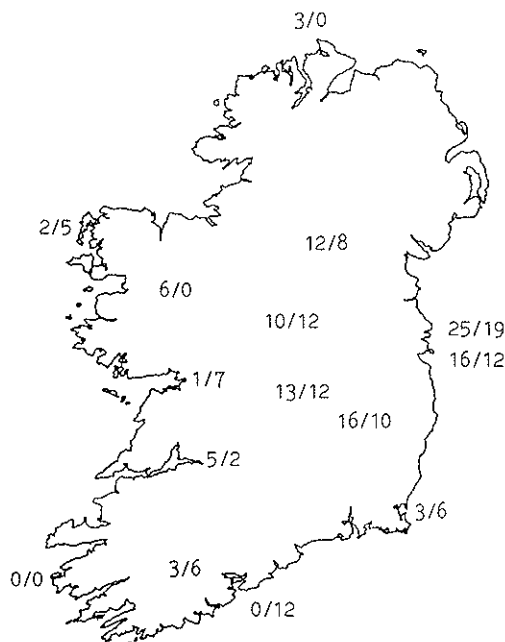
Winds were strong during the cold spell in many coastal areas and the wind-chill factor made the temperature feel much lower. The highest gust of the month 65 knots was recorded at Cahircivean on the 12th while a gust of 61 knots occurred at Malin Head on the 5th.

SNOW DEPTHS

Many Irish winters are free from significant or widespread snowfalls. The snowfalls of 1916-1917 are commonly regarded as the most severe of this century, however in recent memory the snowfall of January 1982 caused widespread disruption in the east of the country and the associated cold spell lasted for over a week.

Comparison between recorded snow depths in 1982 and 1987 reveals that falls were greater in the south and southeast this January. Coupled with the higher snowfalls some southern areas reported record low temperatures. The Dublin area was less badly affected and the cold spell, in all areas, did not last as long.

1982 / 1987



Depth of Snow (cms.)