Dull, Wet and Windy

The weather of October 1990 presents a similar pattern to that of the same month last year: strong winds, heavy rain at times, dull, but mild overall. Some of that heavy rain caused local flooding in the east of the country on Monday the 15th, as this picture shows.

(Photo Irish Times)
Wintry end to unsettled month
— heavy rain and strong winds a frequent feature

Weather conditions were very unsettled with low pressure systems dominating the charts in the vicinity of Ireland. There were three main phases in the month's weather. From the 1st to the 15th the meteorological situation was that which usually causes unsettled conditions: winds were between south and west in direction and Atlantic weather systems crossed the country with fair regularity.

Some of these rainfall belts were very active with over 20 mm of rain at some stations on the 2nd, 6th and 10th. The sequence of radar below shows how the rain spread across the country on Tuesday the 2nd. Frontal troughs associated with low pressure to the west and northwest mainly affected the north during the early part of the day but the rain reached most other areas by the middle of the day. It cleared away over the Irish Sea late that evening, although eastern areas had some further light rain or drizzle during the early hours of the following morning.

We had little or no rain on the 7th and 8th. Between the 9th and the 11th a cold front with minor waves gave rain in all but parts of South Munster and the southeast of Leinster. The front moved away to the north on the 12th and we had a mild dry southerly flow. A cold front crossed Ireland late on the 12th and early on the 13th but amounts of rain were small. Apart from the widespread heavy rain of the 2nd, most of the rain that fell during the first 13 days of the month affected northern and western areas. Indeed from the 7th to the 10th, while Ballintemple measured a total of 30 mm, Rosslare stayed dry throughout and there was just a couple of millimetres in the Cork area.

Strong winds were also a feature of that first fortnight. Although the 6th was the...
windiest day of the month, most stations reported their strongest gusts of the month on the 13th or 14th, including Cahirciveen with a 71 knot gust on the 13th, the strongest of the month.

The second phase began on the 14th with the main Atlantic low pressure area located to the south of Iceland and depressions moving up from the Bay of Biscay. Later on the 14th and during the 15th one such depression moved northwards up the Irish Sea bringing very heavy rain and some thunder to eastern parts, where between 40 and 60mm of rain fell while over in the west, Belmullet escaped rain altogether. The next low pressure system gave widespread rain late on the 16th and on the 17th, heaviest this time in the west and north. During the 18th and 19th amounts of rain were generally small as depressions to the southeast of Ireland filled slowly. Between the 20th and 22nd we had a stiff easterly airflow with a depression to the south and another to the west of Ireland; except in parts of South Munster the 21st and 22nd were largely dry. During the 23rd the low to the south moved northwards, passing over the southwest of Munster during the evening and ending the second phase in which winds between north and east were predominant and wind speeds were noticeably slacker.

The wind picked up again for the last week or so of the month. Ireland was in a southerly airflow on the 24th with a depression to the west drifting away northwestwards. There were very few showers on the 24th but later on the 24th...
and during the 28th there were some heavy showers as a depression approached from the southwest to be over South Munster early on the 29th. Troughs associated with a depression to the north brought rain to many areas on the night of the 26th/27th, and later on the 27th there was further rain from a depression to the southwest. As the low cleared east-northeastwards the following day a pattern of sunny spells and blustery showers in a cold, mainly northwesterly airflow became established, which persisted until the end of the month.

Thunder was reported on the 3rd, during the period from the 13th to the 15th, and again on the 29th. There were some hail showers on the 3rd also, and again during the period of blustery showers from the 26th to the 31st. Apart from Cork Airport, which had fog on 5 days during the month, fog was reported only on the 26th and 27th from a few stations.

**SEA TEMPERATURE**

Malin Head reports a mean sea temperature for the month of 12.7°C, which is normal for October. The highest value recorded was 15.5°C, the lowest 11.6°C. Sea temperatures at the end of October generally ranged from less than 13°C off northern and northeastern coasts to close to 14°C off the south and southeast coasts.

**RAINFALL**

Wet, especially in Ulster and North Leinster

Rainfall was well above normal everywhere. More than twice the normal October amounts fell to the north of a line from Dublin to Belfast. It was the wettest October on record at Clones, Malin Head and Mullingar, the wettest since 1959 at Ballycastle, and 1966 at Casement and since 1967 at Shannon.

A total of 250 millimetres fell at Malin Head, whereas Roche's Point measured just 114mm. Malin Head's total comes to 234% of normal for October. At Cork Airport, the total rainfall was just 130% of normal.

Although there were few sustained periods without rain in western parts - both Cahirciveen and Belmullet had some rain on all but 4 days of the month, along the south coast there were only 18 days with rain. The most notable rain dates were the 2nd, the 5th-6th, 10th-11th, 14th-15th, 17th, 24th (in the west), 25th and 27th. Some of the few dry days were the 7th - 8th (except in the west and north), the 12th (although 14 mm fell at Belmullet), and the 19th and 22nd.

The heaviest rain fell in Leinster on the 15th. 48.3mm fell at Casement Aerodrome, about one third of the station's total for the month, making it the wettest October day on record there. Both Rosslare and Dublin Airport also had over 40mm of rain that day.
Cool end to mild month

In spite of a cold end to the month, mean temperatures ended up above average everywhere. Ranging from 18.5°C at Clonmel to 12.5°C at Rosslare, temperatures exceeded the averages for the month of October by between 0.3°C and 1.2°C.

The southeast fared best: mean temperatures were more than a degree above normal. Along western and northern coasts however, the departure from normal was generally less than half a degree. The drop in temperatures from the 20th made quite a difference: prior to that mean temperatures were running between 1 and 2°C above normal.

The highest temperatures of the month were recorded on Friday the 6th in the south and east but elsewhere the 19th saw the highest values, the temperature reaching 19.7°C at Belmullet that day. Mean maximum temperatures were close to normal for the month but mean minimum values were generally well above, over 2°C above at Kilkenny. Although the coldest air temperature of the month, 1.4°C, was recorded at Kilkenny on the 8th, most stations had their coldest nights during the period from the 26th to the 29th. The coldest temperature at ground level, -2.5°C, also occurred at Kilkenny on the 8th. Ground frost mainly occurred at inland stations on the 7th and 8th and between the 26th and 29th.

Dull everywhere

October was a dull month everywhere. Casement Aerodrome was the sunniest station, but even there the average daily sunshine amount was just 2.8 hours, which is 88% of normal for the month of October. Cahirciveen averaged only 1.7 hours a day or 66% of normal. Most stations between 70% and 80% of normal sunshine, only the east midlands doing a bit better with up to 89% of normal at Mullingar.

The number of days with no sunshine at all varied from 4 in the extreme north and the southeast to between 6 and 9 over the rest of the country. Brrr heading the list with a grand total of 11 dull days during the month. The duller days were the 2nd, 3rd, 11th, 13th, the period from the 17th to the 19th and to a lesser extent from the 21st to the 23rd.

The days with most sunshine generally were the 3rd, 6th, 7th, 14th, 16th, and the last week of the month, from the 29th to the 31st. The sunniest day of the month at most stations was Wednesday the 3rd, when Rosslare recorded 9.9 hours, the maximum daily sunshine amount for the month.
Monday 5th: Frontal trough brought rain to many areas.
Winds southeasterly or southerly light to moderate to
first, later moderate to fresh with gale gusts in the north.

Surface: rain at 11:00, brightness from 10:00
Temperature: max. 14°C, min. 8°C
SUNshine: up to 3 hours

Tuesday 6th: Frontal trough moved eastwards and cleared by late evening.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 15°C, min. 9°C
SUNshine: up to 4 hours

Tuesday 7th: A strong southwesterly airflow.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 16°C, min. 10°C
SUNshine: up to 4 hours

Tuesday 8th: Winds moderate to fresh with gale gusts in the north and northwest.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 15°C, min. 9°C
SUNshine: up to 4 hours

Tuesday 9th: Southwesterly airflow.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 16°C, min. 10°C
SUNshine: up to 4 hours

Wednesday 10th: Cold front with wavy waves moved across the country.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 15°C, min. 9°C
SUNshine: up to 4 hours

Wednesday 11th: Front with wavy waves. Snow in the Midlands.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 15°C, min. 9°C
SUNshine: up to 4 hours

Thursday 12th: A cold front just to the west gave rain in the extreme west.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 15°C, min. 9°C
SUNshine: up to 4 hours

Friday 13th: A strong and gusty southwesterly airflow.

Surface: rain at 06:00, brightness from 21:00
Temperature: max. 15°C, min. 9°C
SUNshine: up to 4 hours
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NOTES: Rainfall in millimetres. Temperatures in Degree Celsius. Sunshine in Hours and Wind in Knots. Gust = Gust of > 33.6 knots. * = days with 0.2mm or more rainfall.