

The following is a short analysis of the low impact named storm Corrie. The impact date for Ireland was Sunday 30th to Monday 31st January 2022, this date is based upon the date of the storm's highest sustained (10-minute mean) wind speed of 72 km/h (39 knots) observed at 21 UTC at Malin Head, Co Donegal.

- Storm Corrie impacted mainly the UK and mainland Europe with the strong gusts in Donegal and Mace Head.
- No national or station records were broken during this weather event.
- The impact date for Ireland was Sunday 30 January 2022, this date is based upon the date of the storm's highest sustained (10-minute mean) wind speed of 72 km/h (39 knots) observed at 20:00 UTC and 24:00 UTC at Malin Head, Co Donegal.
- The highest daily gust (3-second) wind speeds 98 km/h (53 knots) was also recorded at Malin Head, Co Donegal at 20:58 UTC on Sunday 30 January 2022.
- The previous highest sustained (10-minute mean) wind speeds to occur in January was 131 km/h storm force 10 (71 knots) from the east-southeast and which occurred at Foynes Airport, Co Limerick on Thursday 18 January 1945.
- The previous highest gust (3-second mean) wind speeds to occur in any January was 178 km/h (96 knots) which occurred at Claremorris, Co Mayo on Sunday 27 January 1974.
- The two highest hourly rainfall totals were observed at the hour ending 14 UTC were 2.7 mm of rain fell at Newport, Co Mayo and 2.4 mm of rain fell at Knock Airport, Co Mayo.
- The highest daily rainfall totals was observed at Lough Mourne Wtp were 17.10 mm of rain fell on Sunday 30 January 2022.
- The highest individual wave was recorded at M4 Buoy with 10.2 m recorded.

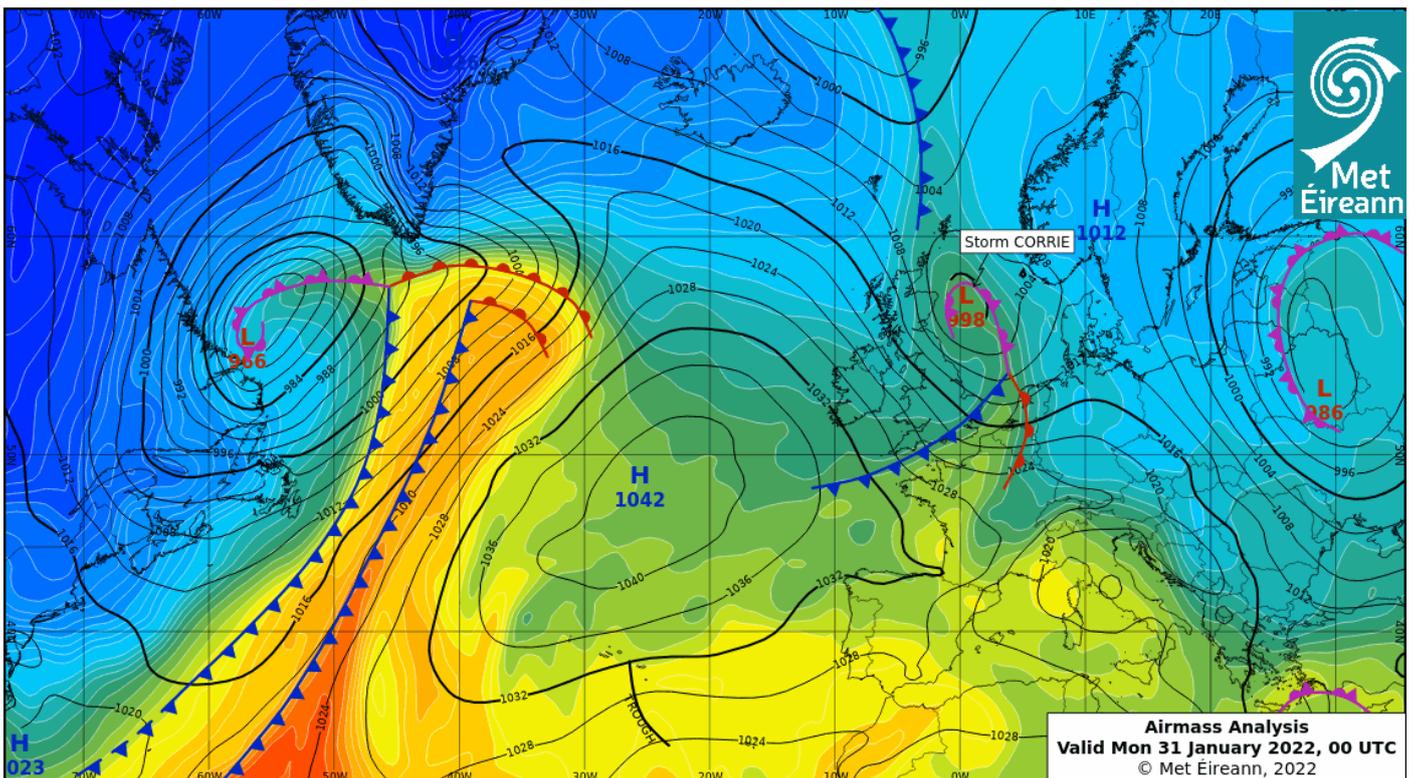


Figure 1. Nearest available chart to the hour of highest gust wind speed 98 km/h at Malin Head, Co Donegal at 20:58 UTC on Sunday 30 January 2022.

Sunday 30 January 2022

A ridge of high pressure (1039 hPa) near the Bay of Biscay and a depression of 980 hPa in the North Sea (Storm Corrie) declined over Ireland, allowing a strengthening southwest airflow to develop, veering northwest later as Storm Corrie tracked across northern Scotland later in the afternoon. Storm Corrie passed the north of Ireland with winds reaching gusts ranging from 74 to 98km/h in Knock Airport and Malin Head. Rain continued to spread southeastwards across the country in the afternoon. By evening, the rain cleared to scattered showers.

Monday 31 January 2022

On Monday 31 January 2022 Ireland still lay in a strong to gale force north-west airflow generated by Storm Corrie which was centred over the North Sea with a low of 997 hPa. Storm Corrie slowly filled and cleared eastwards. Gusty north-west winds countrywide strongest in the North. Light rain in the North throughout the day with sunny spells in the East, overcast conditions elsewhere. Cloudy and overcast during the evening with some light rain or drizzle, mainly in the North. Westerly winds, winds strong near coasts. There were no national wind records broken during Storm Corrie and the storm reached its maximum intensity in the North Sea close to the east coast of England and mainland northern Europe.

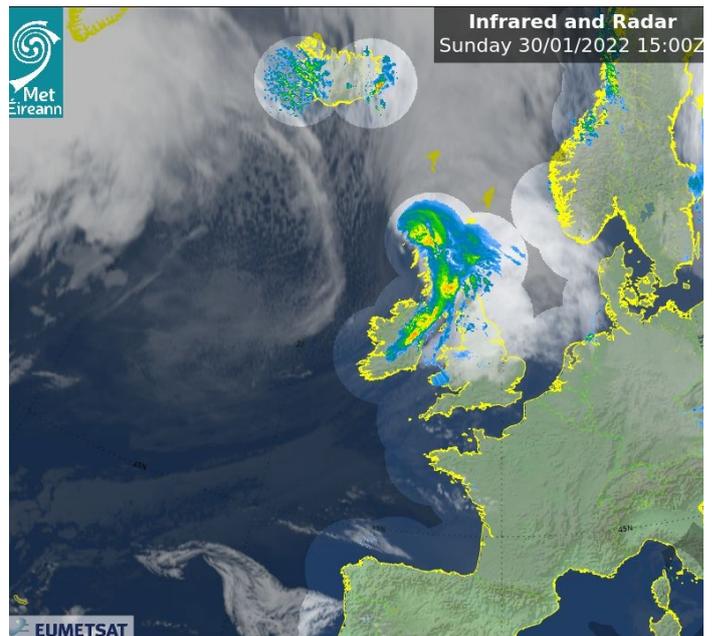
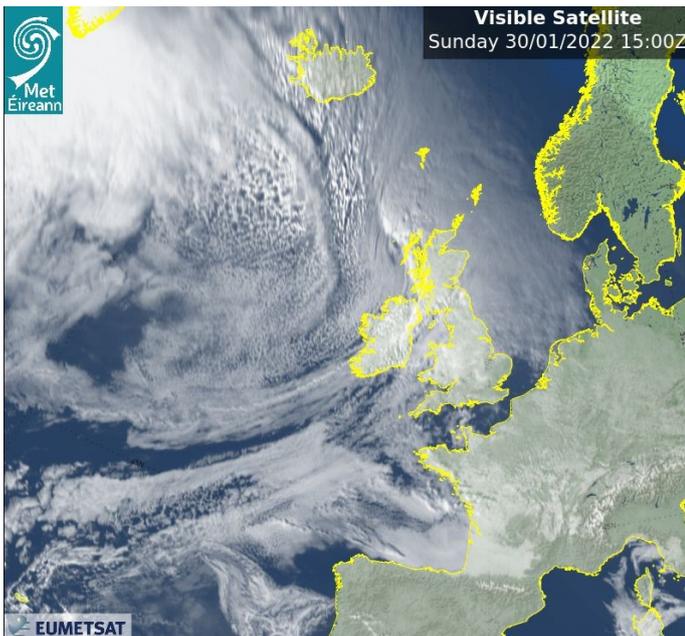


Figure 2 and 3. Satellite images closest to hour (1500 UTC) of the lowest mean sea level pressure 1013.5 hPa at Malin Head, Co Donegal on Sun 30 Jan 2022

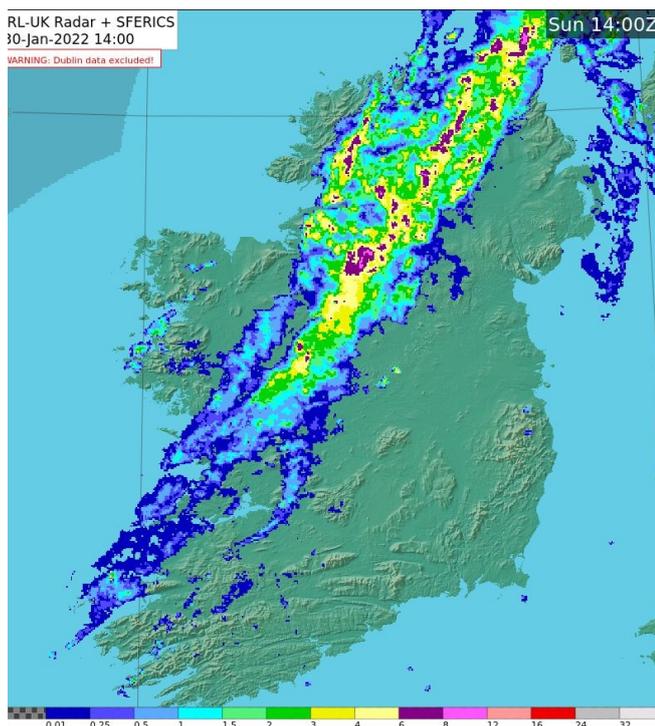


Figure 4. On Sun 30 Jan 2022 in the hour ending 14 UTC 2.7 mm of rain fell at Newport, Co Mayo

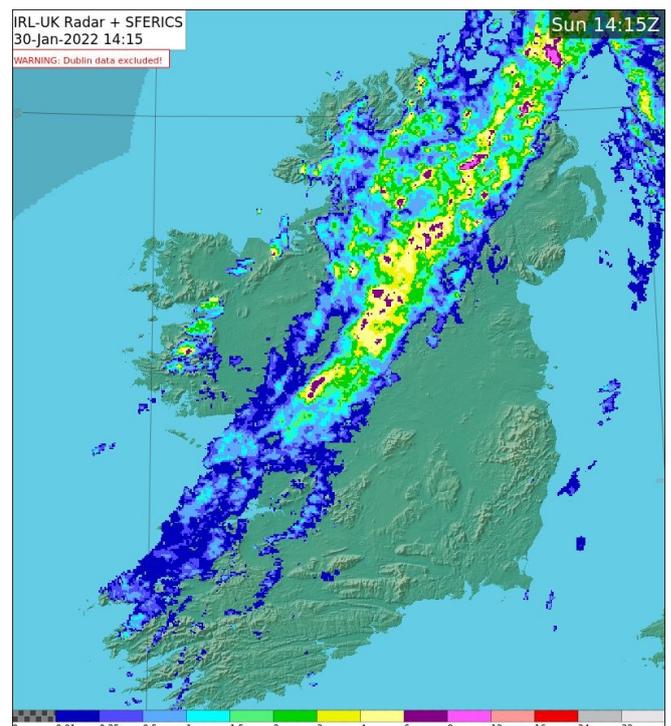


Figure 5. On Sun 30 Jan 2022 in the hour ending 15 UTC 2.4 mm of rain fell at Knock Airport, Co Mayo

Atmospheric mean sea level pressure (hPa)

While rapidly intensifying over the North Sea storm Corrie deepened by 20 hPa in 24 hours. The minimum mean sea level pressure (MSLP) observed in Ireland during storm Corrie was in the North and recorded at Knock Airport with 996.0 hPa on Sunday the 30th. A pressure drop of approximately 17 hPa occurred at Knock Airport between the period 00:00 AM on Sunday 30 and 00:00 AM on Monday 31.

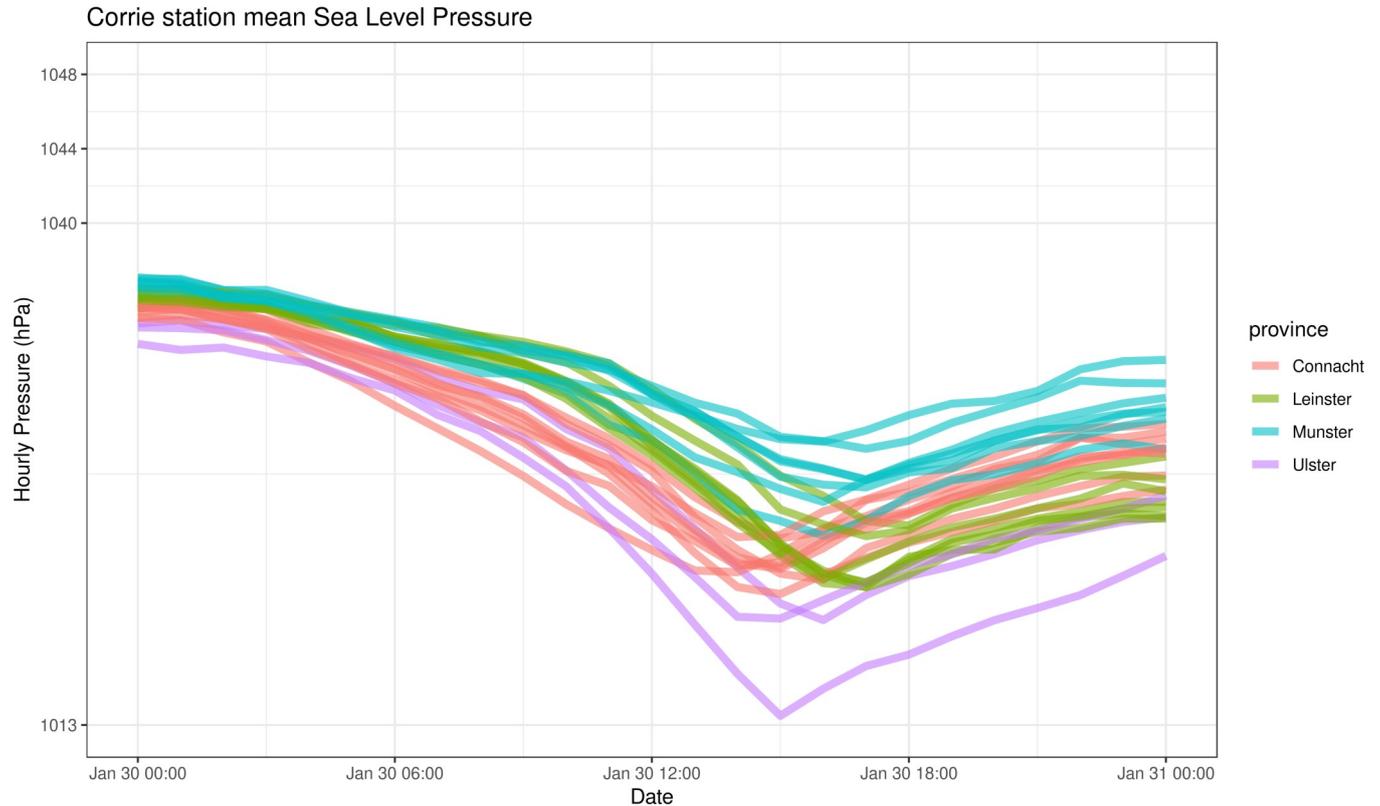


Figure 6: On Sun 30 Jan 2022 Mslp for all synoptic stations and coloured by provinces

Impacts

- **Power Outages:** Some power outages in Northern Ireland an ESB Power Checked revealed
- **Flooding:** No flooding was reported.
- **Travel:** No travel disruption was reported.

Table 2: Marine Buoy data

The following table was provided by the Met Éireann Marine Unit for the days 30 January 2022 and 31 January 2022.

| Buoy | Max Mean Winds | Max Gust | Max Sig. Wave | Max Individual Wave |
|------|---------------------------------|-------------------------------------|---------------|---------------------|
| M3 | 46 km/h (25 knots or 29 mph) | 55 km/h 30 knots 34 mph | 3.9 m | 7.0 m |
| M4 | 61 km/h (33 knots or 38 mph) | 80 km/h 43 knots 49 mph | 7.1 m | 11.8 m |
| M5 | 40 km/h (22 knots or 25 mph) | 61 km/h 33 knots 37 mph | 2 m | 3.9 m |

Table 1. Observations at SYNOPTIC STATIONS

This table contains wind speeds and rainfall observations for the SYNOPTIC stations for 2 days, Sunday 30 January 2022 and Monday 31 January 2022. Some of the observations have weather warning thresholds and these are highlighted. See the weather warnings page on www.met.ie.

| Station location | Sustained (10-min mean) | Date highest mean | Wind Direction Highest sustained | Gust (3-sec mean) Wind Speed | Date Highest Gust | Wind Direction Highest | Daily Rain (mm) | Total Rain (mm) |
|------------------------------------|---|--|----------------------------------|---|-----------------------------|------------------------|-------------------------------|-----------------|
| Malin Head* Co Donegal | 72 km/h Gale Force 8 (39 knots or 5 mph) | Mon 31 Jan 2022 00UTC and Sun 30 Jan 2022 00UTC | 310° (NW) and 290° (NW) | 98 km/h (53 knots or 61 mph) | Sun 30 Jan 2022 2058 UTC | 290° (WNW) | 4.6 Sun 30 Jan 2022 | 7.5 |
| Finner Co Donegal | 61 km/h Near Gale (33 knots or 38 mph) | Sun 30 Jan 2022 15UTC | 280° (W) | 93 km/h (50 knots or 58 mph) | Sun 30 Jan 2022 1457 UTC | 260° (W) | 3.6 Sun 30 Jan 2022 | 4.4 |
| Mace Head** Co Galway | 61 km/h Near Gale (33 knots or 38 mph) | Sun 30 Jan 2022 15UTC | 300° (WNW) | 80 km/h (43 knots or 49 mph) | Sun 30 Jan 2022 1556 UTC | 300° (WNW) | 2.5 Sun 30 Jan 2022 | 2.5 |
| Dublin Airport Co Dublin | 56 km/h Near Gale (30 knots or 35 mph) | Sun 30 Jan 2022 19UTC | 290° (WNW) | 74 km/h (40 knots or 46 mph) | Sun 30 Jan 2022 1749 UTC | 280° (W) | 0.9 Sun 30 Jan 2022 | 0.9 |
| Newport Co Mayo | 52 km/h Near Gale (28 knots or 32 mph) | Sun 30 Jan 2022 16UTC | 290° (WNW) | 83 km/h (45 knots or 52 mph) | Sun 30 Jan 2022 2200 UTC | 300° (WNW) | 7.4 Sun 30 Jan 2022 | 7.4 |
| Knock Airport Co Mayo | 50 km/h Strong Breeze (27 knots or 31 mph) | Sun 30 Jan 2022 17UTC | 300° (WNW) | 74 km/h (40 knots or 46 mph) | Sun 30 Jan 2022 1511 UTC | 270° (W) | 4.7 Sun 30 Jan 2022 | 4.7 |
| Casement Aerodrome Co Dublin | 50 km/h Strong Breeze (27 knots or 31 mph) | Mon 31 Jan 2022 midnight and Sun 30 Jan 2022 18UTC | 250° (WSW) and 240° (WSW) | 74 km/h (40 knots or 46 mph) | Sun 30 Jan 2022 1702 UTC | 260° (W) | 0.5 Sun 30 Jan 2022 | 0.5 |
| Belmullet Co Mayo | 48 km/h Strong Breeze (26 knots or 30 mph) | Sun 30 Jan 2022 10UTC | 210° (SSW) | 74 km/h (40 knots or 46 mph) | Sun 30 Jan 2022 1340 UTC | 250° (WSW) | 2.5 Sun 30 Jan 2022 | 2.5 |
| Roches Point Co Cork | 48 km/h Strong Breeze (26 knots or 30 mph) | Sun 30 Jan 2022 18UTC | 310° (NW) | 61 km/h (33 knots or 38 mph) | Sun 30 Jan 2022 1854 UTC | 310° (NW) | 1.1 Sun 30 Jan 2022 | 1.1 |
| Sherkin Island Co Cork | 44 km/h Strong Breeze (24 knots or 28 mph) | Sun 30 Jan 2022 16UTC | 260° (W) | 63 km/h (34 knots or 39 mph) | Sun 30 Jan 2022 1701 UTC | 260° (W) | 1.0 Sun 30 Jan 2022 | 1.0 |
| Shannon Air- port Co Clare | 43 km/h Strong Breeze (23 knots or 26 mph) | Sun 30 Jan 2022 15UTC | 240° (WSW) | 69 km/h (37 knots or 43 mph) | Sun 30 Jan 2022 1609 UTC | 270° (W) | 2.0 Sun 30 Jan 2022 | 2.1 |

*Caution: Malin Head wind speeds are observed (using an anemometer) at a non-standard height of 23m while all others are at 10m. This will cause Malin Head's wind speeds to be higher in a strong air flow. ** Caution: Mace Head anemometer is situated above exposed rock at the coast line.

| Station location | Sustained (10-min mean) Wind Speed | Date highest mean | Wind Direction Highest sustained | Gust (3-sec mean) Wind Speed | Date Highest Gust | Wind Direction Highest Gust | Daily Rain (mm) | Total Rain (mm) |
|-------------------------------|---|--|----------------------------------|--|-----------------------------|-----------------------------|-------------------------------|-----------------|
| Claremorris Co Mayo | 43 km/h Strong Breeze (23 knots or 26 mph) | Sun 30 Jan 2022 15UTC | 270° (W) | 65 km/h (35 knots or 40 mph) | Sun 30 Jan 2022 1507 UTC | 270° (W) | 4.0 Sun 30 Jan 2022 | 4.0 |
| Cork Airport Co Cork | 41 km/h Strong Breeze (22 knots or 25 mph) | Mon 31 Jan 2022 04UTC | 300° (WNW) | 54 km/h (29 knots or 33 mph) | Mon 31 Jan 2022 0302 UTC | 300° (WNW) | 0.6 Sun 30 Jan 2022 | 0.6 |
| Dunsany Co Meath | 39 km/h Fresh Breeze (21 knots or 24 mph) | Sun 30 Jan 2022 16UTC | 260° (W) | 63 km/h (34 knots or 39 mph) | Sun 30 Jan 2022 1750 UTC | 290° (WNW) | 3.6 Sun 30 Jan 2022 | 3.7 |
| Valentia Observatory Co Kerry | 39 km/h Fresh Breeze (21 knots or 24 mph) | Sun 30 Jan 2022 15UTC | 250° (WSW) | 59 km/h (32 knots or 37 mph) | Sun 30 Jan 2022 1539 UTC | 250° (WSW) | 1.2 Sun 30 Jan 2022 | 1.2 |
| Oak Park Co Carlow | 37 km/h Fresh Breeze (20 knots or 23 mph) | Mon 31 Jan 2022 23UTC | 280° (W) | 61 km/h (33 knots or 38 mph) | Mon 31 Jan 2022 0048 UTC | 300° (WNW) | 1.0 Sun 30 Jan 2022 | 1.0 |
| Mount Dillon Co Roscommon | 37 km/h Fresh Breeze (20 knots or 23 mph) | Sun 30 Jan 2022 16UTC | 290° (WNW) | 59 km/h (32 knots or 37 mph) | Sun 30 Jan 2022 1631 UTC | 280° (W) | 2.6 Sun 30 Jan 2022 | 3.2 |
| Gurteen Co Tipperary | 37 km/h Fresh Breeze (20 knots or 23 mph) | Sun 30 Jan 2022 16UTC | 260° (W) | 54 km/h (29 knots or 33 mph) | Sun 30 Jan 2022 1643 UTC | 260° (W) | 2.0 Sun 30 Jan 2022 | 2.0 |
| Athenry Co Galway | 35 km/h Fresh Breeze (19 knots or 22 mph) | Sun 30 Jan 2022 14UTC | 230° (SW) | 57 km/h (31 knots or 36 mph) | Sun 30 Jan 2022 1623 UTC | 290° (WNW) | 3.2 Sun 30 Jan 2022 | 3.2 |
| Johnstown Castle Co Wexford | 31 km/h Fresh Breeze (17 knots or 20 mph) | Mon 31 Jan 2022 04UTC | 290° (WNW) | 52 km/h (28 knots or 32 mph) | Mon 31 Jan 2022 0709 UTC | 270° (W) | 0.3 Sun 30 Jan 2022 | 0.3 |
| Ballyhaise Co Cavan | 30 km/h moderate breeze (16 knots or 18 mph) | Sun 30 Jan 2022 14UTC | 210° (SSW) | 54 km/h (29 knots or 33 mph) | Mon 31 Jan 2022 0001 UTC | 300° (WNW) | 3.0 Sun 30 Jan 2022 | 3.5 |
| Mullingar Co Westmeath | 26 km/h moderate breeze (14 knots or 16 mph) | Mon 31 Jan 2022 03UTC and Sun 30 Jan 2022 017UTC | 290° (WNW) and 280° (WNW) | 48 km/h (26 knots or 30 mph) | Sun 30 Jan 2022 1730 UTC | 290° (WNW) | 3.1 Sun 30 Jan 2022 | 3.5 |
| Moore Park Co Cork | 26 km/h moderate breeze (14 knots or 16 mph) | Sun 30 Jan 2022 16UTC | 260° (W) | 43 km/h (23 knots or 26 mph) | Sun 30 Jan 2022 1835 UTC | 290° (WNW) | 0.3 Sun 30 Jan 2022 | 0.4 |
| Markree Castle Co Sligo | NA | NA | NA | NA | NA | NA | NA | 4.5 |
| Phoenix Park Co Dublin | NA | NA | NA | NA | NA | NA | NA | 1.0 |

Caution: Malin Head wind speeds are observed (using an anemometer) at a non-standard height of 23m while all others are at 10m. This will cause Malin Head's wind speeds to be higher in a strong air flow. Caution: Mace Head anemometer is situated above exposed rock at the coast line.*

Definitions

Gust wind speeds are an average of 3-second wind speeds.

Sustained wind speeds are an average of 10-minute wind speeds. For observations of sustained wind speeds:

- Storm Force 10 \geq 89 km/h (48 knots)
- Violent Storm Force 11 \geq 103 km/h (56 knots)
- Hurricane Force 12 \geq 117 km/h (64 knots)

This report is based on the data observed at Met Éireann's weather stations and available on this date. All times are UTC unless stated they are local Irish time. Synoptic station data is midnight to midnight UTC. Long-Term Averages (LTAs) and 'normal' refer to the observations being averaged over the period 1981-2010. *Sunshine data is from the Autosol Network. LTAs for these sites are currently not used for comparison purposes.

For more information, contact Met Éireann at e-mail: enquiries@met.ie