



VIOLENT STORM ISHA

Sunday 21 January 2024

Eleventh named storm of the 2023/24 season

Named by Met Office on Friday 19 January 2024

Published 3 October 2024

Storm Isha, named by the UK Met Office on Friday 19 January 2024, was the 11th named storm (9th named storm from the Western Europe Group¹ list of names) of the 2023/24 season.

Storm Isha was associated with a powerful jet stream that initially developed over the north-east of the United States on Friday and then swept across the North Atlantic towards north-western Europe. The powerful jet stream was caused by a steep temperature gradient between a very cold Arctic airmass over the northern United States and Canada and a much warmer tropical airmass over the southeast of the United States. Midway across the Atlantic as the low pressure centre moved to the northern side of the jet stream, it began to intensify rapidly, becoming a powerful storm by the time it passed close to the north coast of Ireland late on Sunday 21 January 2024.

Summary

Storm Isha observed the highest (sustained and gust) wind speeds, highest daily mean wind speed and the lowest mean sea level pressure (on land) of the 2023/24 season.

- The highest sustained (10-minute mean) wind speed was a southwesterly violent storm force 106 km/h (57 knots or 66 mph) on Sunday 21 January 2024 around 18 UTC (6 pm local time) observed at Mace Head**, Co Galway. The January Mace Head record was broken, where the previous record was 104 km/h (56 knots) on Friday 3 January 2014.
- The highest gust (3-second mean) wind speed was a southwesterly 137 km/h (74 knots or 85 mph) on Sunday around 18:30 UTC (6:30 pm local time) observed at Mace Head, Co Galway.
- The highest daily mean wind speed was 65.2 km/h (35.2 knots or 40.5 mph) at Mace Head (coastal), Co Galway on Sunday 21 January 2024. This was the highest daily mean wind speed observed during the season, that is between Friday 1 September 2023 and Saturday 31 August 2024.
- The lowest hourly mean sea level pressure (MSLP) was 963.4 hPa on Sunday around 21 UTC (9 pm local time) observed at Malin Head* (coastal), Co Donegal.
- The highest daily (00-00 UTC) rainfall total was 36.2 mm on Sunday at Claremorris, Co Mayo (28 % of its 1991-2020 Long Term Average (LTA)). The highest 24-hour (09-09 UTC) rainfall total was 73.9 mm on Sunday at Glenapeka, Co Cork (23 % of its LTA).
- The highest individual wave height was 18.3 m and this was recorded at M6 (in the deep Atlantic) at around 22 UTC (10:00 pm local).

¹ Met Éireann, Met Office and KNMI

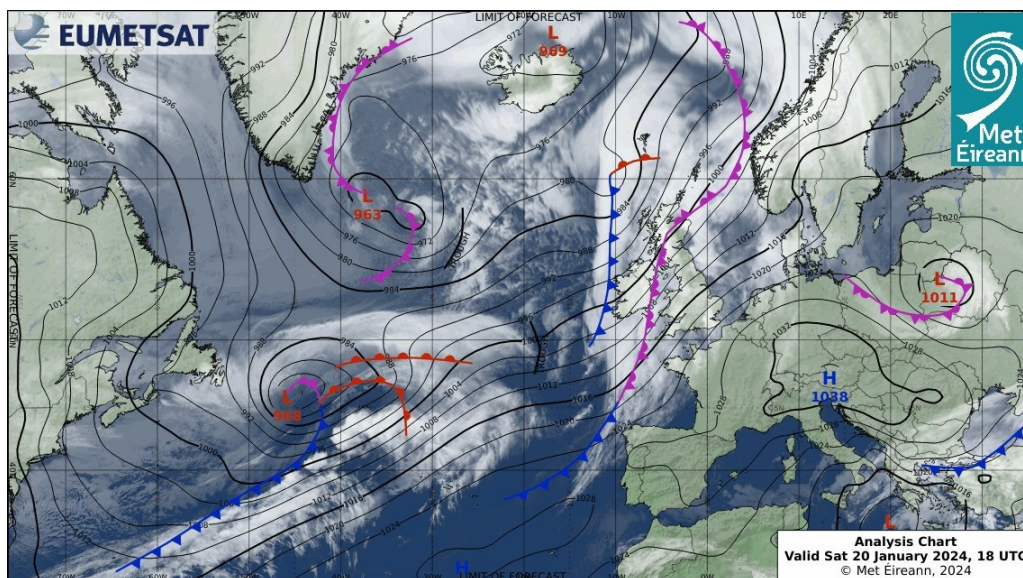


Figure 1. Analysis and satellite chart at hour 18 UTC on Sat 20 Jan 2024

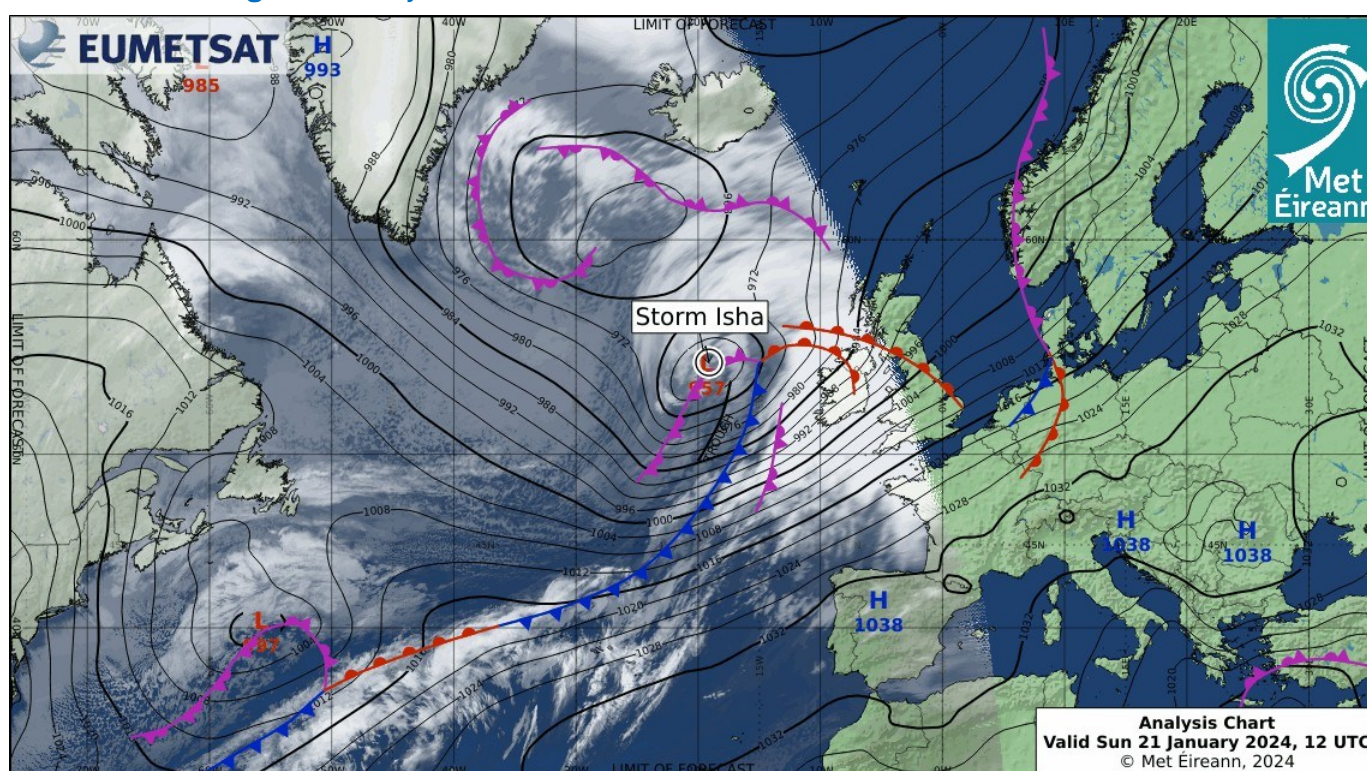


Figure 2. Analysis and satellite chart at 12 UTC on Sun 21 Jan 2024

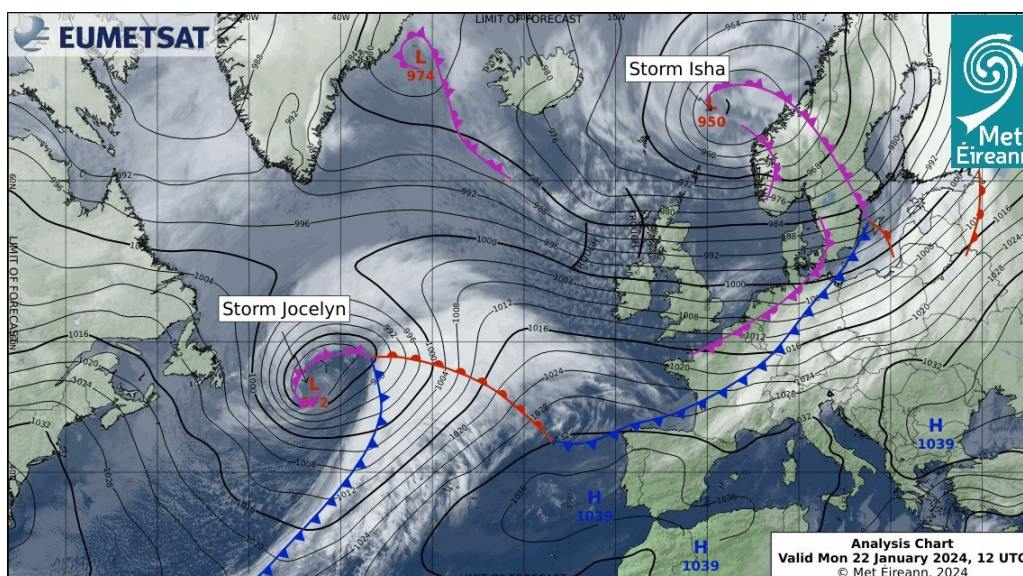


Figure 3. Analysis and satellite chart at 12 UTC on Mon 22 Jan 2024

Daily Weather Summaries

Saturday 20 January 2024

Ireland lay in a very strong southerly airflow with a depression of 974 hPa centred south of Iceland and an anticyclone of 1031 hPa centred over France during the morning. A series of fronts moved eastwards across Ireland. A cloudy and windy day with fresh to strong and gusty southerly winds. Scattered outbreaks of rain and drizzle in the afternoon, heavy at times in the West and Southwest early evening, tracking eastwards. Became drier and calmer for a time in the evening before more rain moved in from the west with strong and gusty southwest-to-west winds as Storm Isha approached.

Sunday 21 January 2024

By 9 am, Ireland lay in a strong to near gale force south-westerly airflow with a depression of 961 hPa, Storm Isha, centered to the west of Ireland and an anticyclone of 1037 hPa centered over mainland Europe.

Storm Isha tracked to the northwest of Ireland during the day. Strong and gusty southwesterly winds country-wide, with strong gales and high waves along coasts. A wet day too with heavy rain and thunder at times, particularly in the West and South.

The winds became westerly and decreased in most areas overnight but stayed very strong in the Northwest. Rain cleared eastwards early followed by clear spells and scattered showers.

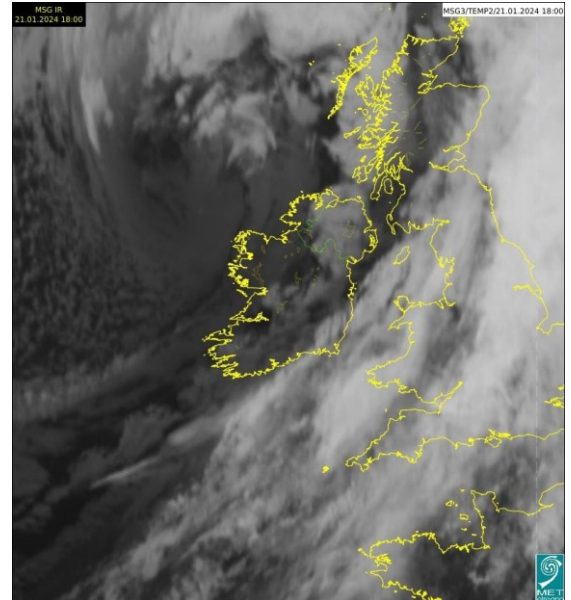


Figure 4. Infrared satellite image at 18 UTC (the hour closest to the time of the high-est gust 137 km/h on Sun 21 Jan 2024 at 6:33 pm at Mace Head, Co Galway

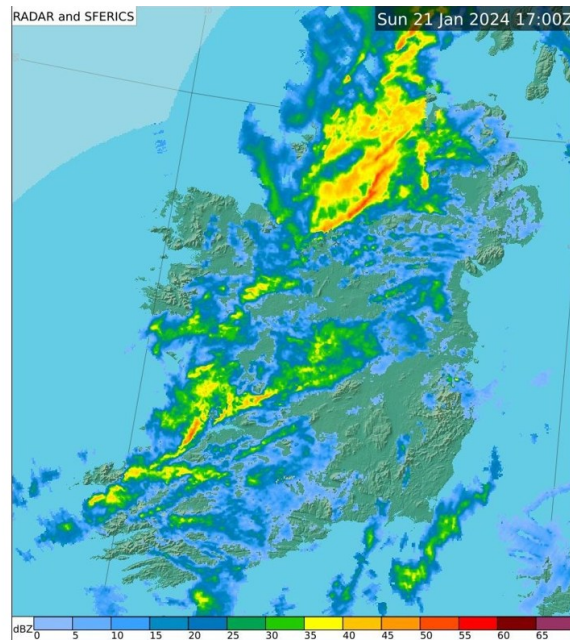
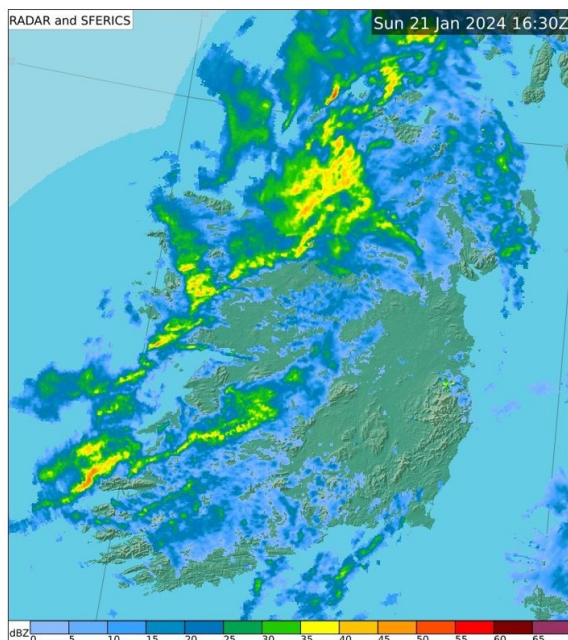


Figure 5. On Sun 21 Jan 2024 at 16:30 UTC when 8.4 mm of rain fell at Claremorris, Co Mayo

Figure 6. On Sun 21 Jan 2024 at 17 UTC 8.6 mm of rain fell at Knock Airport, Co Mayo

Monday 22 January 2024

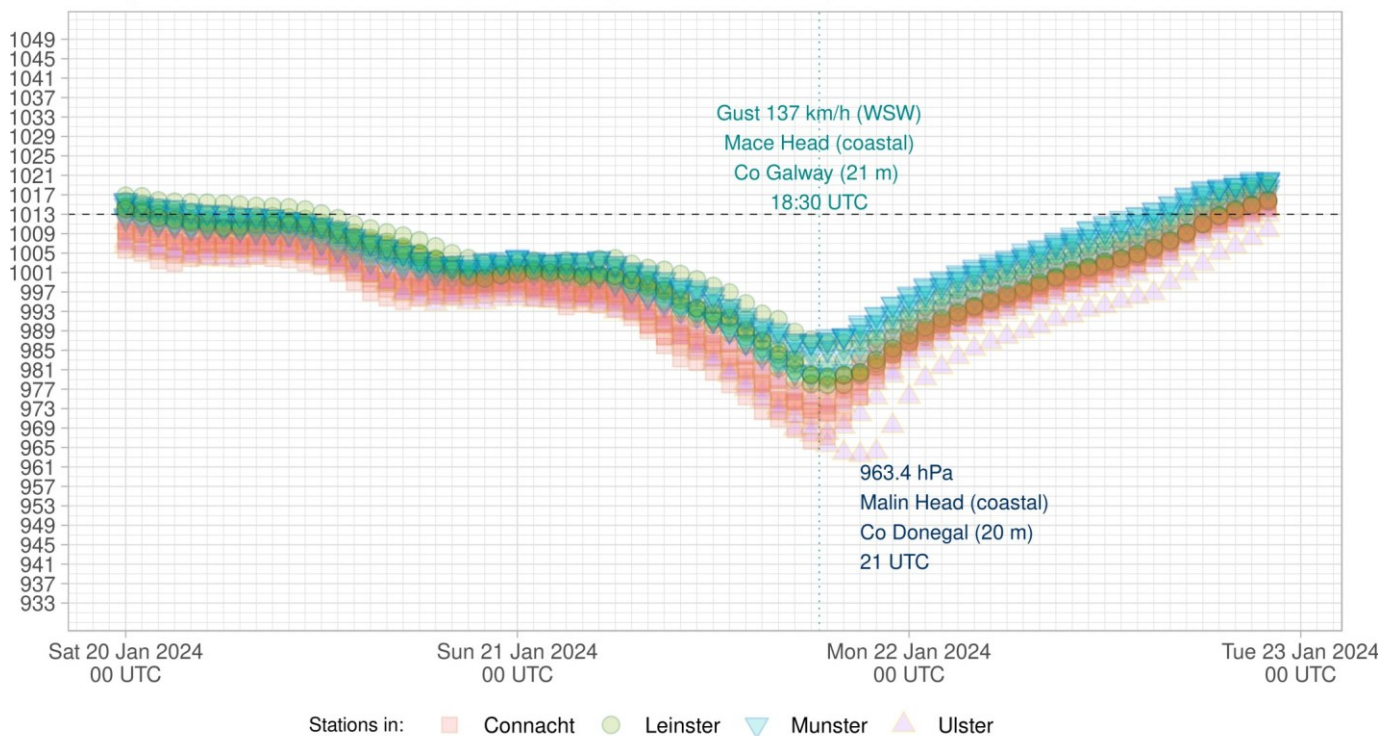
Ireland lay in strong and unstable westerly winds during the day due to a 948 hPa depression (storm Isha) north of Scotland. Breezy with strong gusts in the West and Northwest with sunny spells and scattered, sometimes heavy with hail. Showers became isolated in the evening, thundery in the northwest. Early night was mostly dry with occasional isolated showers. Rain and drizzle developed in the Southwest and spread northeast overnight as storm Jocelyn approached, with breezy, gusty westerly winds.

Mean Sea Level Pressure (MSLP) on land

The minimum hourly mean sea level pressure observed in Ireland during storm Isha was 963.4 hPa at Ma-lin Head (coastal), Co Donegal around 21 UTC on Sunday 21 January 2024.

Named Storm ISHA

Hourly Mean Sea Level Pressure (hPa) and Highest Gust Wind Speed



© Met Éireann (2024)

Figure 7: Hourly Mean Sea Level pressure between Sat 20 and Mon 22 Jan 2024 inclusive. Each point represents the observation at a station and are coloured by province.

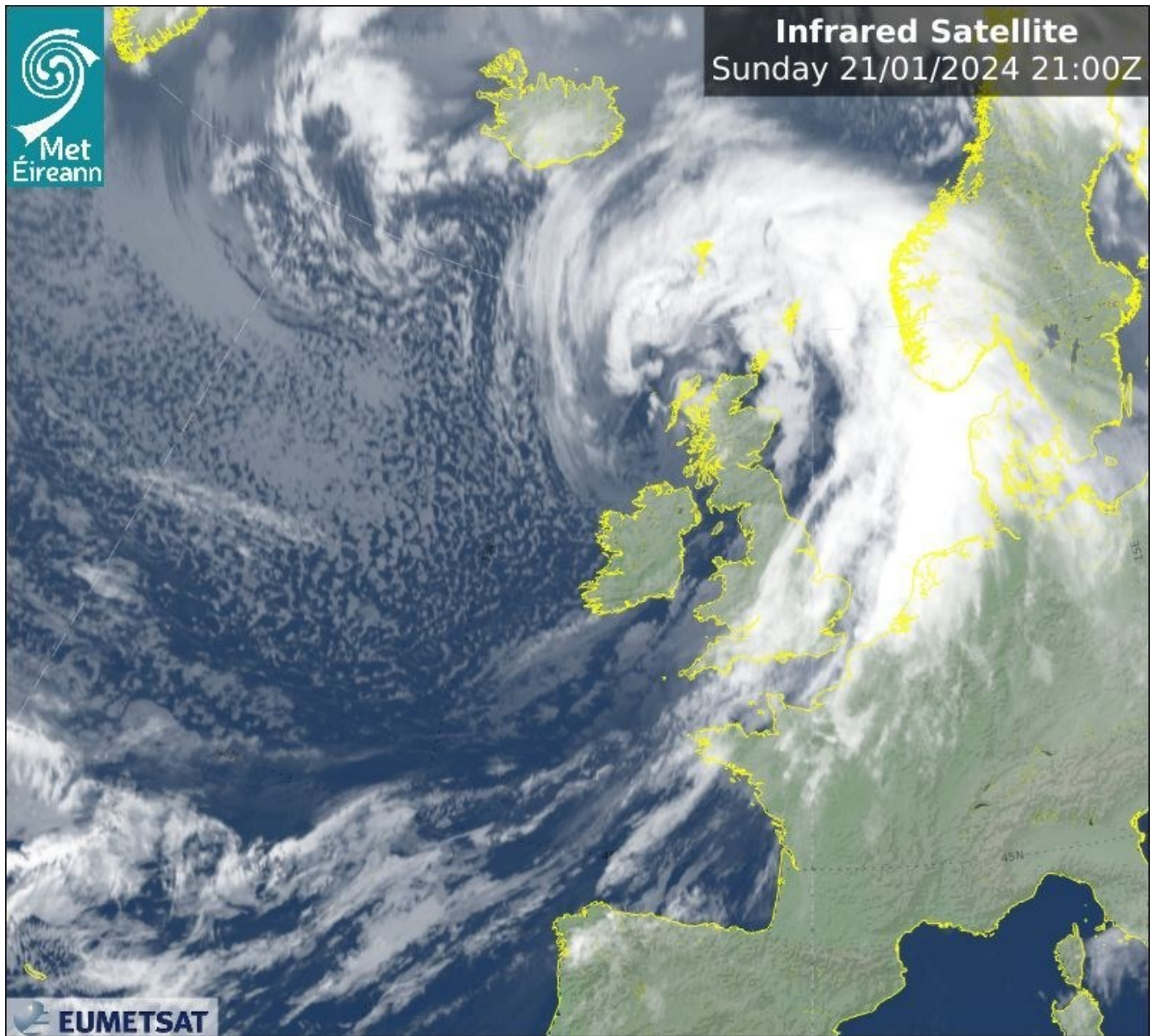


Figure 8. Infrared EUMETSAT Satellite image at 21 UTC on Sun 21 Jan 2024, the time of the low-est mean sea level pressure (on land) of 963.4 hPa at Malin Head (coastal), Co Donegal

The lowest MSLP observed in the named storms of the 2023/24 storm season was 963.4 hPa at Malin Head (coastal), Co Donegal during Storm Isha.

Since storm naming began for the 2015/16 season, this is only the fifth time the MSLP has gone lower than 964 hPa during a named storm event.

The last time was during storms:

- Violent Storm Barra with 957.2 hPa on Fri 26 Dec 2021
- Bella (gale force) with 961.2 hPa on Sat 26 Dec 2020
- Storm Ciara with 962.1 hPa on Sun 9 Feb 2020
- Storm Jorge with 956.6 hPa on Sat 29 Feb 2020
- Violent Storm Ophelia with 962.2 hPa on Mon 16 Oct 2017

Marine observations

Table 1. Extremes of wind speeds and wave heights at Irish Marine Data Buoys on Sun 21 Jan 2024

Buoy Location	Sustained Wind Speeds	Gust Wind Speeds	Significant Wave Height	Individual Wave Height
M2 (Irish Sea)	69 km/h (37 knots or 43 mph) at 19 UTC	94 km/h (51 knots or 59 mph) at 19 UTC	5.2 m at 21 UTC	8.3 m at 21 UTC
M3 (off Cork coast)	59 km/h (32 knots or 37 mph) at 16 UTC	96 km/h (52 knots or 60 mph) at 17 UTC	10.2 m at 21 UTC	17.8 m at 16.7 UTC
M4 (off Donegal coast)	87 km/h (47 knots or 54 mph) at 21 UTC	122 km/h (66 knots or 76 mph) at 21 UTC	10.9 m at 23 UTC	16.7 m at 23 UTC
M5 (off south Wexford coast)	74 km/h (40 knots or 46 mph) at 20 UTC	107 km/h (58 knots or 67 mph) at 20 UTC	8.2 m at 22 UTC	13.3 m at 23 UTC
M6 (deep Atlantic)	61 km/h (33 knots or 38 mph) at 15 UTC	102 km/h (55 knots or 63 mph) at 15 UTC	11.8 m at 17 UTC	18.3 m at 22 UTC

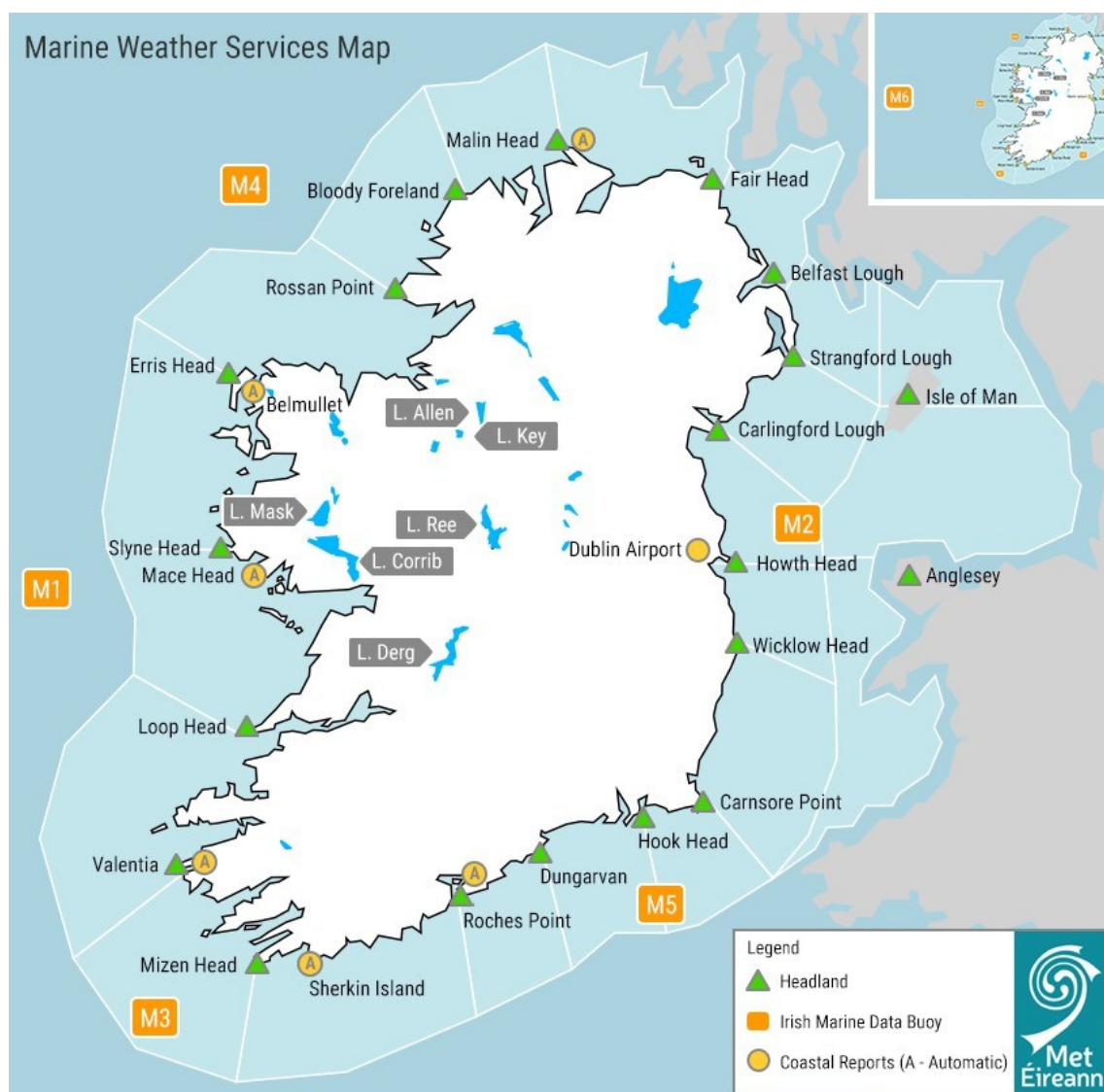


Figure 9. Marine Services Area Map

Synoptic land stations' extremes

The following table contains wind speeds and rainfall observations for the primary (SYNOPTIC) stations during storm Isha. Sustained wind speeds (average 10-minute mean land-wind speeds) are shaded according to the Beaufort land-wind scale.

Table 2. Extremes of wind speeds and rainfall totals at synoptic stations

Station location	Sustained (10-min mean) Wind Speed	Date Highest Sustained Wind	Wind Direction Highest sustained	Gust (3-sec mean) Wind Speed	Date Highest Sustained Gust Wind Speed	Wind Direction Highest Gust	Daily Rain Total	Total Rain (2 days Sat and Sun)
Mace Head** (coastal) Co Galway	106 km/h Violent Storm Force (57 knots or 66 mph)	Sun 21 Jan 2024 18UTC	240° (WSW)	137 km/h (74 knots or 85 mph)	Sun 21 Jan 2024 1830 UTC	240° (WSW)	12.0 Sun 21 Jan 2024	15.8 mm
Malin Head* (coastal) Co Donegal	102 km/h Storm Force (55 knots or 63 mph)	Sun 21 Jan 2024 22UTC	240° (WSW)	133 km/h (72 knots or 83 mph)	Sun 21 Jan 2024 2249 UTC	250° (WSW)	14.7 Sun 21 Jan 2024	19.3 mm
Belmullet (coastal) Co Mayo	93 km/h Storm Force (50 knots or 58 mph)	Sun 21 Jan 2024 14UTC	210° (SSW)	130 km/h (70 knots or 81 mph)	Sun 21 Jan 2024 1539 UTC	210° (SSW)	21.3 Sun 21 Jan 2024	27.3 mm
Finner (coastal) Co Donegal	91 km/h Storm Force (49 knots or 56 mph)	Sun 21 Jan 2024 19UTC	240° (WSW)	130 km/h (70 knots or 81 mph)	Sun 21 Jan 2024 2043 UTC	240° (WSW)	15.7 Sun 21 Jan 2024	21.5 mm
Roches Point (coastal) Co Cork	89 km/h Storm Force (48 knots or 55 mph)	Sun 21 Jan 2024 17UTC	200° (SSW)	113 km/h (61 knots or 70 mph)	Sun 21 Jan 2024 1724 UTC	200° (SSW)	22.4 Sun 21 Jan 2024	35.2 mm
Newport (coastal) Co Mayo	80 km/h Strong Gale Force (43 knots or 49 mph)	Sun 21 Jan 2024 15UTC	210° (SSW)	119 km/h (64 knots or 74 mph)	Sun 21 Jan 2024 1531 UTC	200° (SSW)	17.0 Sun 21 Jan 2024	19.6 mm
Sherkin Island (coastal) Co Cork	78 km/h Strong Gale Force (42 knots or 48 mph)	Sun 21 Jan 2024 13UTC	210° (SSW)	106 km/h (57 knots or 66 mph)	Sun 21 Jan 2024 1702 UTC	210° (SSW)	12.0 Sun 21 Jan 2024	21.6 mm
Knock Airport Co Mayo	76 km/h Strong Gale Force (41 knots or 47 mph)	Sun 21 Jan 2024 20UTC	240° (WSW)	120 km/h (65 knots or 75 mph)	Sun 21 Jan 2024 1929 UTC	230° (SW)	32.7 Sun 21 Jan 2024	43.6 mm
Shannon Airport (coastal) Co Clare	76 km/h Strong Gale Force (41 knots or 47 mph)	Sun 21 Jan 2024 18 UTC	210° (SSW)	109 km/h (59 knots or 68 mph)	Sun 21 Jan 2024 1704 UTC	220° (SW)	14.2 Sun 21 Jan 2024	21.3 mm
Valentia Observatory (coastal) Co Kerry	72 km/h Gale Force 8 (39 knots or 45 mph)	Sun 21 Jan 2024 16 UTC	210° (SSW)	115 km/h (62 knots or 71 mph)	Sun 21 Jan 2024 1639 UTC	210° (SSW)	19.8 Sun 21 Jan 2024	32.2 mm
Cork Airport (coastal) Co Cork	72 km/h Gale Force 8 (39 knots or 45 mph)	Sun 21 Jan 2024 17U TC	210° (SSW)	107 km/h (58 knots or 67 mph)	Sun 21 Jan 2024 1727 UTC	230° (SW)	19.3 Sun 21 Jan 2024	37.3 mm
Casement Aerodrome Co Dublin	72 km/h Gale Force 8 (39 knots or 45 mph)	Sun 21 Jan 2024 19U TC	220° (SW)	106 km/h (57 knots or 66 mph)	Sun 21 Jan 2024 2110 UTC	220° (SW)	8.0 Sun 21 Jan 2024	13.8 mm

Station location	Sustained (10-min mean) Wind Speed	Date Highest Sustained Wind	Wind Direction Highest sustained	Gust (3-sec mean) Wind Speed	Date Highest Gust Wind Speed	Wind Direction Highest Gust	Daily Rain Total	Total Rain (2 days Sat and Sun)
Athenry Co Galway	70 km/h Gale Force 8 (38 knots or 44 mph)	Sun 21 Jan 2024 17UTC	230° (SW)	106 km/h (57 knots or 66 mph)	Sun 21 Jan 2024 1715 UTC	230° (SW)	19.7 mm Sun 21 Jan 2024	30.4 mm
Dunsany Co Meath	69 km/h Gale Force 8 (37 knots or 43 mph)	Sun 21 Jan 2024 20UTC	240° (WSW)	98 km/h (53 knots or 61 mph)	Sun 21 Jan 2024 2004 UTC	220° (SW)	13.6 mm Sun 21 Jan 2024	21.2 mm
Gurteen Co Tipperary	67 km/h Gale Force 8 (36 knots or 41 mph)	Sun 21 Jan 2024 18UTC	220° (SW)	98 km/h (53 knots or 61 mph)	Sun 21 Jan 2024 1927 UTC	220° (SW)	11.4 mm Sun 21 Jan 2024	16.9 mm
Claremorris Co Mayo	65 km/h Gale Force 8 (35 knots or 40 mph)	Sun 21 Jan 2024 16UTC	210° (SSW)	126 km/h (68 knots or 78 mph)	Sun 21 Jan 2024 1624 UTC	210° (SSW)	36.2 mm Sun 21 Jan 2024	45.0 mm
Oak Park Co Carlow	65 km/h Gale Force 8 (35 knots or 40 mph)	Sun 21 Jan 2024 18UTC	200° (SSW)	94 km/h (51 knots or 59 mph)	Sun 21 Jan 2024 1817 UTC	200° (SSW)	10.9 mm Sun 21 Jan 2024	21.2 mm
Ballyhaise Co Cavan	61 km/h Near Gale (33 knots or 38 mph)	Sun 21 Jan 2024 20UTC	230° (SW)	102 km/h (55 knots or 63 mph)	Sun 21 Jan 2024 2008 UTC	230° (SW)	10.5 mm Sun 21 Jan 2024	15.6 mm
Mount Dillon Co Roscommon	57 km/h Near Gale (31 knots or 36 mph)	Sun 21 Jan 2024 19UTC	240° (WSW)	100 km/h (54 knots or 62 mph)	Sun 21 Jan 2024 1944 UTC	240° (WSW)	18.0 mm Sun 21 Jan 2024	23.1 mm
Dublin Airport (coastal) Co Dublin	57 km/h Near Gale (31 knots or 36 mph)	Sun 21 Jan 2024 19UTC	210° (SSW)	100 km/h (54 knots or 62 mph)	Sun 21 Jan 2024 1839 UTC	210° (SSW)	5.6 mm Sun 21 Jan 2024	8.9 mm
Johnstown Castle (coastal) Co Wexford	56 km/h Near Gale (30 knots or 35 mph)	Sun 21 Jan 2024 19UTC	210° (SSW)	89 km/h (48 knots or 55 mph)	Sun 21 Jan 2024 1926 UTC	220° (SW)	16.9 mm Sun 21 Jan 2024	32.7 mm
Mullingar Co Westmeath	50 km/h Strong Breeze (27 knots or 31 mph)	Sun 21 Jan 2024 19UTC	230° (SW)	87 km/h (47 knots or 54 mph)	Sun 21 Jan 2024 2016 UTC	240° (WSW)	12.9 mm Sun 21 Jan 2024	23.8 mm
Moore Park Co Cork	44 km/h Strong Breeze (24 knots or 28 mph)	Sun 21 Jan 2024 17UTC	210° (SSW)	83 km/h (45 knots or 52 mph)	Sun 21 Jan 2024 1746 UTC	210° (SSW)	17.1 mm Sun 21 Jan 2024	31.5 mm

Impacts

- **Power Outages:** ESB Power Check some 235,000 homes were without electricity on the morning of Monday 22 January 2024 ([ESB PowerCheck, 2023](#)).
- **Water Shortages:** 35,000 customers without water on the morning of Monday 22 April ([Uisce Éireann, 2024](#))
- **Emergency Services:** Reports Dublin Fire Brigade clearing fallen trees on the Baldonnell Road, Co Dublin, Churchtown, Co Dublin and Dunshaughlin, Co Meath, ([Dublin Fire Brigade, 2024](#)). Emergency Services also attended the scene of an incident in Co Mayo where a man in his 40s died in a single car crash on the N17 at Lisduff, Claremorris, Co Mayo and containers at Dublin Port toppled over ([RTE News, 2024](#)).
- **Storm Damage:** A clock tower fell to the ground in Eyre Square, Galway ([RTE News, 2024](#)).
- **Flooding:** Flooding experienced in some coastal areas of Mayo ([Mayo News, 2024](#)).
- **Travel:** Some Bus Éireann and flights cancelled or diverted ([RTE News, 2024](#)).
- Social media reports of many sports fixtures cancelled.

Definitions

- Sustained (or mean) wind speeds are an average of 10-minute wind speeds.
- Gust wind speeds are an average of 3-second wind speeds.
- Unless otherwise stated daily means midnight to midnight UTC.
- Long-Term Average (LTA) and 'normal' refer to the climatological reference period of 1991-2020.
- Beaufort Scale available [here](#).
- Marine area buoy maps and definitions available [here](#).

** Malin Head, Co Donegal's wind speeds are observed (using an anemometer) at a non-standard height of 23 m while all others are at 10 m. This will cause Malin Head's wind speeds to be higher in a strong air flow.*

*** Mace Head, Co Galway's anemometer is situated above exposed rock at the coastline.*

This report is based on the observations from Met Éireann's weather and climate stations and data available up to the publication date.

For climate enquiries, please contact us at enquiries@met.ie.

For media enquiries, please contact media@met.ie or www.met.ie/about-us/contact-us.