

Wind

Overview

- ☞ Wind is the bulk movement of air caused by differences in air pressure.
- ☞ Air moves from high to low pressure along lines of equal pressure – isobars. The closer the isobars the stronger the wind.
- ☞ Wind is normally described by its average speed and direction over a 10 minute period.
- ☞ Gusts are a sudden, brief increase in wind speed.
- ☞ Surface vegetation and obstacles reduce wind speed as they increase friction. Winds are generally stronger over the sea. The highest winds occur on high ground.
- ☞ Wind is forecast in miles per hour (mph), measured in knots (nautical miles per hour) and can be reported using the Beaufort Scale. Standard (SI) units are m/s.

Impacts

Wind impacts include:

Disruption to transport from falling trees on roads and railways, bridges closing, high-sided vehicles blowing over, ferry crossings being cancelled due to sea state, aircrafts not being able to land/take off.

Building damage due to fallen chimneys, dislodged roof tiles, trees falling on to buildings and flying debris.

Disruption to energy and telecommunications as electricity and telegraph wires are brought down, often by falling trees.

Health impacts directly from being physically blown over, flying debris, falling trees and road collisions and indirectly from post-storm clean up e.g. chainsaw injuries.

Notable wind events

29 January 2016 - Storm Gertrude

27-28 October 2013 - St Jude's Day Storm

28 July 2005 - Birmingham tornado

16 October 1987 - 'The Great Storm'

Wind in the UK

Large scale weather systems e.g. winter depressions and storms are the most common sources of strong wind and associated impacts. They can affect large areas and last for several days. Local winds e.g. squalls and downbursts and tornadoes from thunderstorms can occur. Mountain winds e.g. Lee waves and down slope winds can affect areas downwind of mountains and hills. These areas include east of the Pennines and in Cumbria. The prevailing wind direction is south-westerly (coming from the south-west), locations exposed in this direction can experience higher winds. Strong winds are often associated with rain or snow, this can cause amplified impacts.



More information can be found at: www.naturalhazardspartnership.org.uk/hazards/wind