

Snow

Overview

- * Snowflakes form when ice crystals in clouds stick together.
- * Snow falls when snowflakes reach a critical size and weight.
- * Precipitation falls as snow when the air temperature is below 2°C and there is enough moisture in the air to form ice crystals.
- * If air at the surface is too warm snow melts before reaching the ground, and becomes sleet or rain.
- * Snowfall forecasting uses radar and satellite data; although it is difficult to distinguish between snow and other types of precipitation.
- * Snow depth is measured in cm with a laser sensor above a standardised surface.
- * Snow is most likely to occur at high altitudes.

Snow in the UK

The UK receives an average of 23.7 days of snowfall or sleet a year, mostly on higher ground. Cold weather that results in snow is more prevalent in the north and east of the UK, with the snowiest place in the UK being the Cairngorms in Scotland with 76.2 days average sleet/snow. Cornwall is the least likely place to receive snow. Urban areas typically receive less snow than rural areas due to the warming effects of urban environments. Forecasting snow is challenging due to the UK's geographical location which means the UK is affected by a variety of air masses from different directions. Cold air and snow is more likely to occur if air is brought from the Arctic Circle in the North or the European continent, provided there is sufficient moisture in the air

Impacts

Snow impacts include:

Disruption to transport due to an increase in road accidents due to reduced traction; train lines affected by loss of adhesion to rails; and airport delays occur as taxiways and runways needing to be cleared of snow plus aircraft de-icing.

Disruption to energy supply and communications from accumulation of snow on cables, trees and masts resulting in loss of power and communication, from either direct cable breakages, or in damage from falling trees. Water pipes can also freeze and burst.

Health impacts from pedestrians slipping on ice and snow, as well as indirect impacts from transport incidents.

Notable snow events

January to March 2013 - Major travel disruption including severe delays to rail and air transport. 137,000 customers without power in Northern Ireland.

November to December 2010 - 76cm of snow recorded in the Peak District on 1 December. 7 fatalities directly due to the severe weather. Travel disruptions costs £280 million per day. Estimated cost to the UK economy was £1.6 billion.



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