

Big chill from Boston to Beijing

The severe weather conditions in the northern hemisphere are the result of fluctuations in an atmospheric circulation pattern known as the Arctic Oscillation. Since the 1970s, the oscillation has tended to stay in its so-called positive phase – it has now swung into a negative state



Positive phase of Arctic Oscillation:

Ring of strong winds circulating around north pole acts as barrier, keeping cold Arctic air within polar regions

Negative phase: Ring becomes bent into zigzag pattern, meandering north and south. Freezing arctic air escapes to lower latitudes bringing sub-zero temperatures and snow

2 China: Beijing experiences worst snow since 1951. In north, temperatures fall to minus 32C

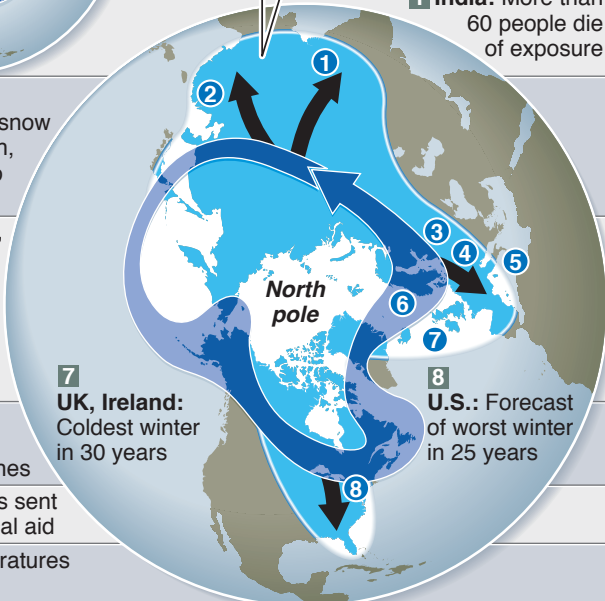
3 Europe: Russia, Baltic and eastern Europe suffer temperatures as low as -22C. Cold kills 122 people in Poland

4 Alps: Up to 10 skiers killed or missing in avalanches

5 Italy: Helicopters sent to Sicily with medical aid

6 Norway: Temperatures plummet to -41C

1 India: More than 60 people die of exposure



7 UK, Ireland: Coldest winter in 30 years

8 U.S.: Forecast of worst winter in 25 years