

Letters to the Editor, April 14, 2013



Volcanic eruptions can cause severe storms. Photo: Reuters

Nature, not man, behind wild weather

The report by Amy Nip on wild weather ('Expect storms, says world's weatherman', March 24), is somewhat misleading.

Storm forecasting requires a fully multi-disciplinary approach including a good understanding of earth sciences, since we are dealing with interactions between components of the earth's systems.

It is necessary to identify the most important factor or factors triggering storms based on the available evidence. Before this is carried out, it is wrong to link the occurrence of extreme storms to global warming.

The highly active hurricane season affecting the east coast of North America during 2012, which included devastating storms such as Hurricane Sandy, was the consequence of the abnormally warm North Atlantic Ocean.

The surface seawater temperature in this ocean was reported to be some 3 degrees Celsius above normal. This is best explained by the submarine eruption of the El Hierro volcano, located in the western Canary Islands, from October 2011 to March 2012.

The cause is therefore natural. Heating of the seawater has nothing to do with the greenhouse effect induced by man-made carbon emissions.

The warm North Atlantic Ocean also accounts for the abnormally wet 2012 in Britain - the second wettest year since records began. A warm ocean was favourable to the generation of numerous frontal activity storms associated with heavy rainfall in the British Isles.

In 2010, following the eruption of the Eyjafjallajökull volcano in Iceland, a succession of frontal activity storms associated with heavy rainfall penetrated central Europe.

Countries affected by severe flooding within two to three weeks of the main eruption on April 14, 2010 included Germany, Poland, Slovakia and the Czech Republic. In Slovakia, the rainfall made it the wettest since records began in 1881.

Volcanic eruptions on land and on the seafloor are therefore both underestimated natural causes of storms. They have to be taken into consideration to improve weather forecasting because of their possible role in atmospheric temperature and pressure changes as well as the redistribution of water vapour.

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