

Ash Cloud - Transcript

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INTRO: It's the worst possible end to a long weekend away rocking up at the airport only to discover your plane home has been cancelled. That was the experience for thousands of Aussies last week and the cause of all those flight delays was a volcanic ash cloud on the other side of the world! So how did ash travel so far? And once here how did it ground our air transport industry?

NATHAN BAZLEY, REPORTER: Planes travel way up through the air at incredible speed. But there is something lurking up there that can take them down. It's called Ash!

ASH, POKEMON: Pikachu thunderbolt!

PIKACHU: Piiiiiiikachu!

Okay, Pokemon's not really a threat to our skies, but ash certainly is. The ash we're talking about starts its life not in a mystical cartoon world, but in the mouth of a huge volcano.

This is the Puyehue volcano in Chile, which is roughly 11,000 ks from Australia. And two weeks ago it started erupting, sending massive clouds of volcanic ash shooting into the sky. Three and a half thousand residents in the area were forced to abandon their homes and many are still in shelters. But as they waited for the danger to pass, the ash drifted higher and higher into the air.

NATHAN: As you might know, hot air rises. So anything above a flame like this one, will slowly float up until the air cools again. But because a volcano is so hot, the ash from one can end up 15ks above the surface of the earth, where it meets some pretty intense winds.

High up in the air around the top and bottom of the planet are jet winds that blow constantly at up to 400ks an hour, from west to east. And once the cloud of ash hits the winds, it's a one-way express trip right around the world. Its destination? The skies above Southern Australia and New Zealand.

Alarm bells went off here, at the Darwin Volcanic Ash Advisory Centre. Their job is to monitor the skies above Australia to make sure there is no ash in the way of aircraft flight-paths. But why does it matter if a little ash is floating around?

This recording captured the moment when all engines failed on a flight back in 1989, when a jumbo jet flew through an ash cloud. Luckily the crew managed to fly out of the cloud and restart the engines.

NATHAN: The problem is that volcanic ash is made up of a substance similar to sand, and when heated to a very high temp, like it would be in the jet engines of a plane, it turns to something like glass. And that can stuff up an engine pretty quickly.

Other problems can come from the ash blocking vital instruments and scratching the windscreen, wings and lights of the plane. So that's why flights were cancelled in Australia when word of the ash cloud spread. But why did some airlines fly, while others stayed on the ground?

Well it all comes down to their idea of what's safe. Some thought it would be ok to fly around the ash clouds, or to fly underneath them. They were happy to do it, even though it would mean using more fuel, which would cost the airline more money. But some airlines thought that even those ideas were too much of a risk and preferred to leave their planes on the ground.

In the end, the only way this airline chaos can come to an end, is for the Chilean volcano to stop pushing out huge clouds of ash. And it's looking like that's starting to happen.

Maybe Pikachu had something to do with it after all.

Ash Cloud - Homework Questions

1. Describe the disruption the ash cloud caused.
2. In which country is the volcano erupting, causing an ash cloud over parts of Australia?
3. About how many kilometres has the ash cloud travelled?
4. How far above the surface of the earth can ash from a volcano end up?
5. How did the ash get to Australia?
6. Jet winds blow constantly at up to _____ km an hour from _____ to _____.
7. Whose job is it to monitor the skies above Australia to make sure there is no ash in the way of aircraft flight paths?
8. Why is it dangerous for aircraft to fly through an ash cloud?
9. Why did some airlines fly while others didn't?
10. Name three facts you learnt watching the BtN story?