Ash not expected to blow toward North America

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(AP) -- Questions and answers about the volcanic ash cloud.

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Q. Should we worry that winds could shift and blow the ash into North America?

A. "At the current time we're not expecting that," said Jeff Osiensky, volcano ash program manager for the National Weather Service. "The likelihood of any ash even reaching into far eastern Canada is pretty unlikely at this point."

Q. With winds blowing west to east, why hasn't this ash circled Earth already and started to threaten flights over North America?

A. Circling the globe would take weeks, Osiensky said. It also takes huge eruptions to send ash around the world, as well as a strong jet stream with winds that concentrate the ash rather than dispersing it.

Q. How do we know this cloud is dangerous to airplanes?

A. A NATO F-16 fighter suffered engine damage after flying through the cloud, a Western diplomat said Monday.

Q. Can't planes just fly above the ash?

A. With current technology, scientists can't pinpoint just exactly where the top of the cloud is, Osiensky said. Planes might have to ascend or descend through it anyway. And planes can't fly below the cloud because ash falls out of the cloud to all levels. So warnings extend from the calculated top of the cloud to the ground.

Q. How long can the ash cloud stay in the air and threaten aircraft?

A. The ash is being driven from Iceland by winds of the jet stream in a southeast direction toward the England and Europe. British and Dutch meteorologists say the dispersal depends on whether the volcano continues to release ash rather than lava, and the strength and direction of the winds over Europe.

Q. Does air pollution from the ash pose a risk on the ground?

A. While some ash has fallen to ground in England, Dr. Peter Baxter of Cambridge University said the amount has been too small to cause health problems. Air monitoring hasn't shown any increase in inhalable particles in the air, despite "a layer of innocuous coarse particles on some people's cars," he said Monday in an e-mail. The World Health Organization has said people with chronic respiratory conditions like asthma, emphysema or bronchitis may be susceptible to irritation and urged people to listen for local public health alerts.

Q. Will the ash cloud from this volcano cause a prolonged cooling spell in Europe by producing a haze that blocks sunlight?

A. Not if the volcano keeps going the way it has, said Alan Robock of Rutgers University in Brunswick, N.J. It's blowing out too little sulfur dioxide, and depositing it too low in the atmosphere to produce a significant effect, he said. (Sulfur dioxide falls out of the atmosphere quickly if it isn't blasted high enough.) "I wouldn't expect it to be

possible to even measure the effects." The same goes for the ash particles themselves, he said.

Q. How long will the volcano keep erupting?

A. Experts say predicting the volcano's behavior is almost impossible, but it could go on for weeks or months. The last time this volcano was active, it erupted off and on for 13 months, starting in 1821. Sometimes the eruptions did not produce ash, but later it would again spit ash into the air.

Q. Is there a risk that this eruption could cause a second Icelandic volcano, Katla, to erupt?

A. In the past, Katla has erupted in tandem with the current volcano, called Eyjafjallajokull. Katla's last major eruption took place in 1918, and another has been expected since the 1960s, said Reynir Bodvarsson, an Icelandic geologist with Uppsala University in Sweden.

Q. Worldwide, volcanoes erupt frequently. Why has this one been so disruptive to air traffic?

A. It's a matter of location. The ash cloud has blown into extremely busy air corridors. The eruption itself is fairly unremarkable.