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The Smell of Volcano

Earth Science

Icelandic volcano Mount Eyjafjallajökull grounded planes across Europe in April when it erupted and spewed ash into the air, but scientist Bruno Neininger headed to the skies anyway. Neininger and his pilot David Oldani flew a motorglider into the plume to measure the amount of volcanic ash in the air.

"We were curious about what the cloud looked like," says Neininger, owner of Metair, a Swiss company that takes atmospheric measurements. It was the first time he had ever flown into volcanic ash. "We knew what to expect, and we knew we could stop and return anytime. We are not daredevils."

Flying a motorglider into volcanic ash sounds dangerous, but it's not. The engine is like a motorcycle engine and less sensitive to the particles than a jet engine, which is so hot, the ash particles would melt and stick, perhaps causing the engine to stop working.

The glider pilots cruised the plume six kilometers above Earth for a total of 10 hours over three days, April 17 to 19. "We clearly smelled it," Neininger says. "We smelled a faint 'perfume' of a steam locomotive, an indication that sulfur was present." They spent about 15 minutes in each different layer, noticing more or less ash. It was like flying through a thick haze. "On Monday [April 19], the concentration was much lower and we could not smell it."

Iceland sits on top of a fault line between two tectonic plates that shift regularly. Mount Eyjafjallajökull is one of Iceland's 22 active volcanoes, and the last three times it erupted a bigger volcano, Mount Katla 25 kilometers away, erupted later. And you know what they say about history repeating itself...

— Jude Isabella