Ash cloud's silver lining: bluer skies

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An aircraft is seen after take off at the airport in Frankfurt, central Germany, Wednesday, April 21, 2010, when German air traffic control opened the airspace again after it was closed for days due to the volcanic ash cloud that came from Iceland. (AP Photo/Michael Probst)

(AP) -- As volcanic ash cast a shadow over millions of lives, Londoners and other city dwellers across Europe were treated to a rare spectacle of nature: Pristine, blue skies brighter than any in recent memory.

The remarkable sight happened in part because mass flight groundings prevented busy airspace from being crisscrossed with plumes of jet exhaust that create a semi-permanent haze - and other effects beyond the white contrails themselves.

Just as city lights make it necessary for us to go to the desert to

appreciate the true glitter of stars, so has modern aviation dulled us to what the noontime sky can really look like - until the erupting volcano in Iceland offered a reminder.

Britain's poet laureate, Carol Ann Duffy, was inspired to write verses about the unusually clear skies above London: "Five miles up the hush and shush of ash/Yet the sky is as clean as a white slate/I could write my childhood there."

Scientists cast the phenomenon in more prosaic terms. Without aircraft contrails, "the skies have been particularly blue," said meteorology professor Chris Merchant of the University of Edinburgh.

The clearer skies are primarily due to a high pressure system in the region, but Merchant said the blue tone has been deeper than normal because of the lack of vapor from aircraft engines. Depending on weather conditions, the vapor trials can expand into thin cirrus clouds.

It's as if somebody suddenly ripped a veil away, exposing the true colors of the heavens.

Amid frustration at the travel disruptions caused by the volcano, some European urbanites have also found something eerily pleasant in the sight of a sky without planes.

In fact, part of the surreal quality of the whole affair has been the illusion of going back to a calmer, less complicated age in which the air was cleaner, life was less harried (no cross-planet shuttles for one-day meetings in Hong Kong), and jets didn't rumble constantly in our ears.

"It's definitely quieter without the planes," said Margaret Mellard, a 63-year-old retiree in London's Regent's Park. "You really do see the difference. It's been really pleasant."

The crisis has caused some to reflect, perhaps nostalgically, on the age when people spent weeks or months en route to their destination. Hopping on a plane, popping an Ambien and waking up 10 hours later in a different time zone and culture seems somehow less romantic.

There was also introspection in the notion of humankind's vulnerability to the whims - or is it laws? - of nature. Would even the climate be affected? In an era of unprecedented concern about the environment, that, too, captured attention.

For skygazers, the ash cloud produced another fringe benefit: spectacular fiery sunsets caused by dusk light filtering through ash.

At least for now, the powerful eruptions from Iceland's Eyjafjallajokull (ay-yah-FYAH-lah-yer-kuhl) volcano have not knocked the global climate off balance like past eruptions. The ash has not fallen to earth in any significant amounts outside Icelend.

The 1991 eruption of Mount Pinatubo in the Philippines spewed a massive cloud of sulfur dioxide that quickly spread across the globe, blocking enough sunlight to reduce average global surface temperatures by about 1 degree Fahrenheit (half a degree Celsius).

In 1783, a toxic ash cloud released by a volcanic eruption on Iceland killed tens of thousands of people and had a strong cooling effect on Europe and North America.

Unlike those eruptions, the Icelandic plume has not climbed into the stratosphere, about 40,000 feet (12,000 meters) above the Earth's surface. That layer of the atmosphere is more stable than lower levels where rain clouds rinse the dust particles from the air.

"Once the volcanic material comes up to those altitudes, it can stay for a

year or so," said Eigel Kaas, a climate expert at the University of Copenhagen. "Because once the particles are up in the stratosphere there is no precipitation."

Should the Icelandic eruption persist and grow stronger, however, there is a chance that the summer could become a tad cooler in Europe, Kaas said.

"If it continues for a month with a rather high altitude, 8-10 kilometers (5-6 miles), then it will definitely impact climate in a regional manner, mainly Europe," he said.

Calculating the impact of reduced carbon emissions - a key contributor to global warming - is a more complex equation.

On an average day, European air travel generates more than 400,000 tons of carbon dioxide - representing about 3 percent of total greenhouse emissions - according to the European Environment Agency. Those aircraft emissions have been cut by more than half in recent days as aircraft were grounded across the continent.

But many of the stranded passengers have chosen to travel by road - in some cases thousands of miles - burning fuel that otherwise would have been left in the tanks.

It's hard to estimate the added emissions, since it remains unclear how many extra vehicles are on the road as a result of the airspace closures and how far they are traveling.

Then there's the volcano's own CO2 emissions.

Colin Macpherson, a professor in earth sciences at Britain's Durham University, estimates that the volcano belched out 150,000 tons of CO2

a day over the first three days of the eruption, and then progressively less.

By comparison, the world's volcanoes release an average of 44 million tons of CO2 annually, Macpherson said.

Alice Bows, a climate scientist at the University of Manchester, said "a back-of-the-envelope calculation" suggests that because aviation is so carbon-intensive, there should be a net reduction in emissions.

Even if the flight stoppage yielded only a small reduction in man-made emissions, Bows wondered whether the travel chaos would have a more lasting effect - on people's minds.

"In the grand scheme of things, the interesting thing for me is, does this change behavior in any way? Does it make people consider different forms of travel?" she said. "Anecdotally we're hearing about people using video conferencing to conduct interviews with people abroad, when they would normally have flown for the interview."