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Friday, April 16, 2010
April 15, 2010, 8:57 am

Views of Volcanic Ash Plume Over Europe

By ROBERT MACKEY

NASA A photograph from NASA’s Terra satellite showing a volcanic ash plume blowing from Eyjafjallajökull volcano in southern Iceland past the Faroe Islands toward northern Scotland and Scandinavia on Thursday. More NASA images.

Updated | 6:23 p.m. As my colleagues Nicola Clark and Liz Robbins report, a high-altitude cloud of ash drifting south and east from an erupting volcano in Iceland has closed airports in northern Europe. Flights have been canceled because volcanic ash contains silicates, or glass fibers, which can melt inside jet engines, causing them to flame out and stall.

Here is a map showing the spread of the ash plume and the restrictions on air travel on Thursday afternoon, based on data from Britain’s National Weather Service, from the Web site of Spiegel, the German magazine:
Another map from the same Web site shows the reach of the ash above Europe at 1 a.m. Central European Time.

The ash is coming from an eruption of the Eyjafjallajökull volcano, located near a glacier of the same name (which, for those not fluent in Icelandic, is pronounced “AYA-fyatla-jo-kutl,” according to NASA — or something like this) in southern Iceland, which began erupting last month for the first time in nearly 200 years.
Video of the ash plume and the erupting volcano in Iceland from Britain’s ITN.

The European Organization for the Exploitation of Meteorological Satellites, which monitors weather patterns from space, has some dramatic images of the ash cloud’s movement on the home page of its Web site.

The organization explains:

Meteosat-9 observes the ash cloud from the volcanic eruption under Eyjafjallajokull glacier in Iceland. Initially the cloud shows a distinctive black color, due to ice particles which initially mask the ash signature. As the cloud progresses eastwards the cloud takes a reddish hue, clearly indicating the presence of volcanic ash.

Here is a later view from the same satellite, showing the movement of the ash between 0:00 and 13:30 UCT today:
Another video made from Eumetsat’s images was posted on YouTube earlier, as Adam Gabbatt notes in a live blog tracking the disruption caused by the ash on The Guardian’s Web site.

As The Lede explained last month, the spectacular images of the eruption’s early stages had tourists rushing to the scene, though it may not be necessary to hurry, given that the last time there was an eruption at Eyjafjallajokull, in 1821, it continued for two years.
Iriya/Flickr Video of the volcano erupting from an Icelander’s Flickr page with more images of Eyjafjallajokull.

Closer views of the volcano, from three Web cams, can be had online — although one camera is currently down “for maintenance.” A handy interactive graphic from The Guardian shows how the ash is spreading across European airspace.

The London Volcanic Ash Advisory Center — part of a global network — is posting updated volcanic ash advisory maps on its Web site. The most recent map, made at 18:00 GMT is here. Montreal’s Volcanic Ash Advisory Center is also keeping an eye on Eyjafjallajokull.

In Iceland itself, The Icelandic Review reports that winds pushing the ash east, away from the capital, have allowed Keflavik airport, near the capital, Reykjavik, to remain open, for now, although flights to Europe have been canceled or disrupted. The Review adds:

There is nothing to indicate that the eruption is about to subside. The cloud of smoke rising from the volcano’s summit turns black every now and then, resulting in ash fall. The winds blow the ash towards the east.

This video report from Britain’s Channel 4 News looks at the disruption to flights, and explains what has happened to jets in the past that flew through clouds of volcanic ash:
As a reader notes, the ash could bring spectacular sunsets to Europe. Robin Scagell, of the Britain’s Society for Popular Astronomy, told The Daily Mail on Thursday: “Be ready to enjoy some dazzling arrays of colors especially purples and reds looking much stronger than usual. The most amazing sunsets I’ve ever seen were in Australia after the El Chichon volcano went off in Mexico in 1982. The sky turned an intense purple and even the moon turned blue. We may also see a phenomenon called a Bishop’s Ring — a huge brown or blue halo around the sun that was first noticed when the Krakatoa volcano exploded in 1883.”

A colleague draws our attention to the fact that Edvard Munch’s famous painting, “The Scream,” may have been inspired by the experience of such a sunset. A description of the painting on an art Web site includes this quote from the painter:

I was out walking with two friends. The sun began to set. I felt a breath of melancholy. Suddenly the sky turned blood-red. I paused, deathly tired and leaned on a fence looking out across the flaming clouds over the blue-black fjord and towns. My friends walked on and there I still stood, trembling with fear – and I sensed a great, infinite scream run through nature.

The site adds: “Astronomers now speculate that the red sky he saw might have been caused by the 1883 eruption of the Krakatoa volcano, half a world away in Indonesia, that sent massive dust clouds up into the atmosphere, leading to a series of intense and other spectacular sunsets.”

Some observers of volcanic activity in Iceland have even speculated that disturbances to the atmosphere in Europe following a huge eruption in Iceland in 1783 may even have helped incite the French Revolution by destroying crops and breeding discontent. As Paul Simons notes in an article in London’s Times on the possible effects of the ash on Britain’s climate, the haze over Europe after that eruption certainly caused fear among the superstitious:

“The summer of the year 1783 was an amazing and portentous one, and full of horrible phenomena,” wrote the naturalist Gilbert White, in Hampshire. “The country people look with a kind of superstitious awe at the red louring aspect of the sun thro’ the fog.”
Readers' Comments

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1 of 2Next

1.
Techni Ally
Toronto
April 15th, 2010
7:26 am

How many of your readers would not be fluent in Icelandic?
Recommend Recommended by 7 Readers

2.
KE
Europe
April 15th, 2010
7:26 am

Obviously this is part of a plan for Icelanders to wreak revenge on Europe for the Icesave debacle.
Recommend Recommended by 16 Readers

3.
AER
Cambridge, England
April 15th, 2010
7:26 am

Despite our leaps and bounds in technology and engineering nature always wins, and it always amazes me that it still surprises people.
Recommend Recommended by 12 Readers

4.
Architect
NYC
April 15th, 2010
7:26 am

Well, at least we can look forward to spectacular pictures of sunsets from western Europe tonight.
Recommend Recommended by 3 Readers

5.
sas
new york
April 15th, 2010
7:29 am

"When Katla erupted in 1755, it blew like a torch into the glacier above, releasing a hellish torrent of instantly melted water, equal, in one estimation, to the combined outflows of the Amazon, Mississippi, Nile and Yangtze rivers. Everything that lay between Katla and the sea was erased at a stroke. Feel the magic, indeed.

“Eyjafjalla has blown three times in the past thousand years,” says Dave McGarvie, a volcanologist at Britain's Open University – “in 920, 1612 and [around] 1823. Each time, it set off Katla.”
“Katla … is a vicious volcano that could cause both local and global damage,” adds Pall Einarsson, a geophysicist at the University of Iceland – global, because an eruption from Katla could trigger widespread cooling.

“When volcanic ash reaches the stratosphere, it remains for a long time,” Gary Hufford, a scientist at the U.S. National Weather Service, told a newspaper. “The ash becomes a very effective block of the incoming solar radiation, thus cooling the atmosphere's temperatures.”

When Katla went off in the 1700s, he said, the U.S. suffered a winter so cold that the Mississippi River froze as far south as New Orleans.

Can you please let us know where this material is from? If it is an article on the Web, a link would be great.

Robert Mackey
Reporter, NYT.com
April 15th, 2010
7:29 am

Can you please let us know where this material is from? If it is an article on the Web, a link would be great.

Geep
Skien, Norway
April 15th, 2010
7:38 am

Who knew there was so much Schadenfreude in Cincinnati?

Aslak
Oslo, Norway
April 15th, 2010
7:49 am

I believe sas' quotation is from the Times:
http://www.timesonline.co.uk...

Here in Norway it looks like all air traffic is grounded at least until Sunday -if the eruption continues for a long time things might get interesting -the economic impact will be huge. And how will we get home tourists that are now in Thailand, the US or other distant countries?

Scott
NYC
April 15th, 2010
7:49 am

Since Britain declared Iceland a terrorist state, isn't this an act of war?

Dude 69
Dude-land
April 15th, 2010
7:54 am

http://thefeedblogs.nytimes.com/2010/04/15/views-of-the-ash-plume-over-europe/?ref=eu...
This is missing in many of the coverages - the guys who monitor volcanic ash ongoing in this sector of the world: the London VAAC (Volcanic Ash Advisory Centre) http://www.metoffice.gov.uk/aviation/vaac/ which is part of a global network of monitoring institutions. They are associated with ICAO and IATA and WOVO.

If I remember right then most short-haul planes don't fly at that altitude, however silicate ash in turbines is a risk you don't want to play with, as is abrasion and thus frosting of the pilot's windows.

Ash advisories are actually quite common, just not in this region.

-D69

Robert Mackey
Reporter, NYT.com
April 15th, 2010
7:54 am
Thanks - we have a link to the London VAAC above (that is where the British weather service maps come from), but we'll make that more clear.

sas
new york
April 15th, 2010
8:05 am
RM -- #5 quote is from march 27 globe & mail

http://www.theglobeandmail.com...

sas
new york
April 15th, 2010
8:26 am
#6, 8, 11. the big shoe yet to drop (pop!) is the more dangerous volcano, Latla. evidence is that all 3 times E..... erupted, latla followed.

yet i can't find a more recent reference to this terrifying probability later than a week or so ago -- before yesterday's E eruption.

what's going on with this? a news blackout on this terrifyingly real probability? can anyone find a reference to the likelihood of latla popping more recent than the following (like, today???)

http://content.usatoday.com...
The other volcano is Katla, not Latla - and there have been many recent reports about it.

"Lava spews out of the Eyjafjallajokull volcano in Iceland on March 21.

The small volcano eruption that forced more than 600 people to flee their homes in Iceland over the weekend could set off a larger volcano.

"When Katla went off in the 1700s, the USA suffered a very cold winter," says Gary Hufford, a scientist with the Alaska Region of the National Weather Service. "To the point, the Mississippi River froze just north of New Orleans and the East Coast, especially New England, had an extremely cold winter.

"Depending on a new eruption, Katla could cause some serious weather changes."

Eyjafjallajokull, the Icelandic volcano that has continued to belch lava, ash and steam since first erupting last weekend, isn't the direct problem. It's Katla, the noisier neighbor, that's the concern. If lava flowing from Eyjafjallajokull melts the glaciers that hold down the top of Katla, then Katla could blow its top, pumping gigantic amounts of ash into the atmosphere.

Scientists say history has proven that whenever the Eyjafjallajokull volcano erupts, Katla always follows -- the only question is how soon.

"If it (Eyjafjallajokull) continues to belch, then you worry," says Hufford.

What's key in having volcanic eruptions affect the weather is both the duration of the eruption, and how high the ash gets blasted into the stratosphere, according to Hufford.

For example, he says, Mount Pinatubo pumped ash for two days in 1991, and spewed it 70,000 feet into the stratosphere. This dropped temperatures worldwide about four degrees for about a year.

"When volcanic ash reaches the stratosphere, it remains for a long time," reports Hufford. "The ash becomes a very effective block of the incoming solar radiation, thus cooling the atmosphere's temperatures."

Scientists are continuing to monitor Eyjafjallajokull for signs of further activity.
In 1784 (perhaps the actual eruption you were referring to was), the volcanic fissures at Lakigigar erupted nearly continuously for a year. The ash cloud deprived New England of a summer. Ben Franklin himself makes note of this fact. The island's population was decimated. The air was toxic with sulfur, the animals asphyxiated or poisoned by their grazing lands, so many of those people who couldn't get out of Iceland simply people starved from the death of agriculture. Some of course were buried in lava. This was not a "Hlaup", or subglacial eruption, this didn't cause floods of water but lava itself, engulfing much of the southern part of Iceland.

A shutdown of more than a few days could cripple some of the low-cost airlines which rely on a steady flow of full plane trips.

Could also soon have a downward effect on the cost of jet fuel futures.

Probably less economic impact on most sectors as the disruption mainly affects air passengers and very high-end cargo trade. Won't have much of any effect on most bulk cargo which travels by sea, truck and rail.

Depending on duration and intensity of the ash outflow -- it will be very interesting to observe how global weather patterns are impacted.

re #15: So, we don't have to worry about global warming until next year!

Trying to parse "Eyjafjallajokull" makes my brain hurt. Could the Times please give some help on the pronunciation?
So here we are again at the mercy of the mother of all volcanoes, just when we were heating up, it looks like cool weather may be coming. What a spectacle of the mysteries of our planet.

Recommended by 0 Readers

1. sas
   new york
   April 15th, 2010
   10:48 am
   18. assuming we don't freeze to death first.

Recommended by 0 Readers

2. jkoch
   Tampa
   April 15th, 2010
   10:48 am
   Will this ash cloud eventually affect flights in the northern U.S.? How long will this take to occur?

Recommended by 0 Readers

3. Ulrich
   Upstate NY
   April 15th, 2010
   10:48 am
   Will it contribute to global cooling for a year or two?

Recommended by 0 Readers

4. Chris
   Brooklyn
   April 15th, 2010
   10:52 am
   For the second time, you've gotten the pronunciation wrong. The P is erroneous. It's more like an unaspirated T or D. Also the double LL at the end follows the same rules for the double in the middle.


Recommended by 2 Readers

5. Robert Mackey
   Reporter, nytimes.com
   April 15th, 2010
   10:52 am
   Pronunciation guides are a rough science, at best. The one we're using comes from The Associated Press, but if you can explain why yours is better, we'll use it.

Recommended by 0 Readers

6. AmiBlue
   Oklahoma
   April 15th, 2010
   10:54 am
   Interesting article. Thanks.
Comments are moderated and generally will be posted if they are on-topic and not abusive. For more information, please see our Comments FAQ.

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April 15

Video From British Leaders’ Debate on Domestic Issues

The leaders of Britain's three largest parties face-off live on British television at 8:30 p.m. local time (3:30 p.m. ET) on Thursday.

April 15

Views of Volcanic Ash Plume Over Europe
The high-altitude ash plume coming from a volcano in Iceland, which has disrupted air travel, can be seen in video, webcam and satellite images.

April 14

(5)

Icelandic Actors Read Entire Bank Crisis Report Aloud

Actors at the Reykjavik City Theatre are in the middle of an ambitious, if not particularly dramatic, effort to read the entire text of a new 2,250-page report on the causes of Iceland's banking crisis to the nation.

April 14

(31)

Vandals Attack West Bank Mosque

Palestinians in a West Bank town awoke on Wednesday to find a blue star of David painted on the outside of their mosque, after what a local resident described as an attack by Israeli settlers who live nearby.

April 14

(12)

Video of Earthquake Damage in China

Chinese state television broadcast images of the damage caused by a powerful earthquake in western China that has killed at least 400 people, injured 10,000 and left many others buried under debris on Wednesday.

What We're Reading

spiegel.de

Court to Decide if East Germans are an Ethnic Group

rferL.org

Russian Paper Calls 22 Women Potential Suicide Bombers

ynetnews.com

ElBaradei Calls Gaza 'World's Biggest Prison'

BBC

Hearing Set on Serbia's Request to Extradite Former Bosnian Official From U.K. on War Crimes Charges

National Security Archives

Kissinger Blocked Demarche on International Assassinations

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Readers are encouraged to take part in the blogging by using the comments threads to suggest links to relevant
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Robert Mackey is The Lede's editor and main blogger. Read more.

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- Al Masry Al Youm
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