## Check out the call quality in your area. →

Sprint has been awarded "Highest Call Quality Performance Among Wireless Cell Phone Users in the West Region in a Tie" by J.D. Power and Associates.





Low graphics Help

Search



**News Front Page** 



**Africa** 

**Americas** 

Asia-Pacific

**Europe** 

Middle East

**South Asia** 

UK

**Business** 

Health

Science & Environment

**Technology** 

**Entertainment** 

Also in the news

Video and Audio

**Programmes** 

Have Your Say

In Pictures

**Country Profiles** 

Special Reports

Related BBC sites

Sport Weather On This Day Editors' Blog

**BBC World Service** 

Page last updated at 10:04 GMT, Friday, 25 April 2008 11:04 UK

E-mail this to a friend

Printable version

## Climate 'fix' could deplete ozone

By Helen Briggs

Science reporter, BBC News

Research has cast new doubt on the wisdom of using Sunblocking sulphate particles to cool the planet.

Sulphate injections are one of several "geo-engineering" solutions to climate change being discussed by scientists.

But data published in Science journal suggests the strategy would lead to drastic thinning of the ozone layer.

This would delay the recovery of the Antarctic ozone hole by decades, and cause significant ozone loss over the Arctic, say US researchers.



Polar stratospheric clouds provide a surface for ozone-destroying reactions

The idea of pumping sulphur into the upper atmosphere ito counteract global warming comes from nature.

Major volcanic eruptions emit vast quantities of sulphur particles that can cool the planet significantly.

This was observed following the 1991 eruption of Mount Pinatubo.

R

TI in

http://news.bbc.co.uk/2/hi/science/nature/7365793.stm

1

But one potential drawback is that sulphates provide a surface on which chlorine gases in polar clouds can become activated, causing chemical reactions that lead to the destruction of ozone molecules.



## Ozone loss

Dr Simone Tilmes of the National Center for Atmospheric Research (NCar) in Boulder, Colorado, and colleagues used a combination of measurements and computer simulations to estimate future ozone loss if sulphate injections were carried out.

Quantities capable of mitigating climate change would destroy as much as three-quarters of the ozone layer over the Arctic, if carried out in the next few decades, they said.

This would also delay the expected recovery of the ozone layer over the Antarctic by about 30 to 70 years, they concluded.

Ozone depletion was enhanced in the Antarctic in the Mt Pinatubo aftermath.

Dr Tilmes said more research was

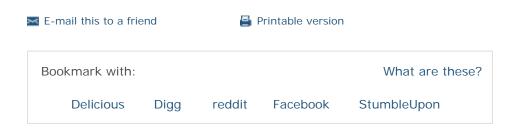


needed before society attempted global geo-engineering solutions in the future.

However, she said the study should not rule out the approach altogether.

She told BBC News: "Politicians have to decide what is most important - if you have climate change you might have catastrophic conditions - they might decide to do this anyway.

"If you have to make decisions you need to know what is good about it and what is bad about it. With this scheme the bad side is definitely the ozone depletion, but you can cool the climate."



FEATURES, VIEWS, ANALYSIS



Poll apathy Afghan voters cynical as crucial elections loom



Gaza challengers Radical group signals Islamist threats to Hamas



FROM BBC SPORT >>
Foreign influence
How England's top
sides have changed

MOST POPULAR NOW | 6,486 pages were read in the last minute.

PRODUCTS & SERVICES E-mail news Mobiles Alerts News feeds

BBC © MMIX

The BBC is not responsible for the content of external internet sites.

News Sources About BBC News

**Podcasts**