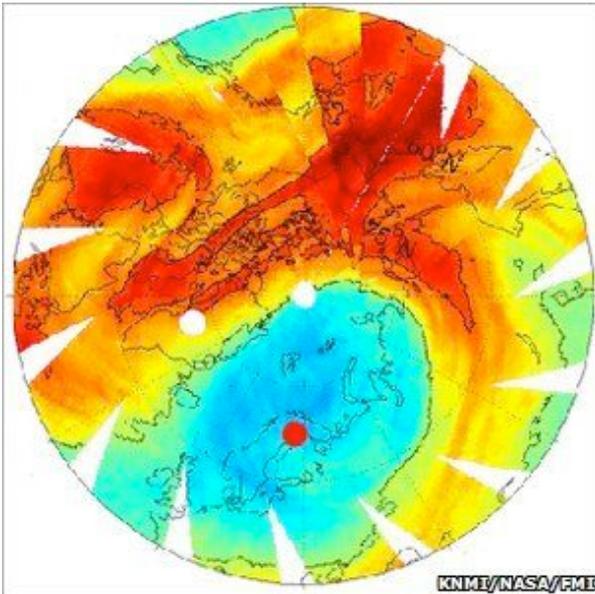


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Arctic ozone levels in never-before-seen plunge

By Richard Black Environment correspondent, BBC News, Vienna



Long a consideration in the Antarctic, ozone levels in the Arctic are now a cause for concern

The ozone layer has seen unprecedented damage in the Arctic this winter due to cold weather in the upper atmosphere.

By the end of March, 40% of the ozone in the stratosphere had been destroyed, against a previous record of 30%.

The ozone layer protects against skin cancer, but the gas is destroyed by reactions with industrial chemicals.

These chemicals are restricted by the UN's Montreal Protocol, but they last so long in the atmosphere that damage is expected to continue for decades.

The destructive reactions are promoted by cold conditions in the stratosphere.

While this is an annual occurrence in the Antarctic, where it has garnered the term "ozone hole", the Arctic picture is less clear as stratospheric weather is less predictable.

This winter, while the Arctic region was unusually warm at ground level, temperatures 15-20km above the Earth's surface plummeted.

"The degree of ozone loss experienced in any particular winter depends on the meteorological conditions," said Michel Jarraud, secretary-general of the World Meteorological Organization.

"The 2011 ozone loss shows that we have to remain vigilant and keep a close eye on the

situation in the Arctic in the coming years."

Loss of ozone allows more of the Sun's harmful ultraviolet-B rays to penetrate through the atmosphere. This has been linked to increased rates of skin cancer, cataracts and immune system damage.

In late March, winds blew the ozone-depleted region over Greenland and Scandinavia.

The WMO is warning people there to heed national alerts and forecasts of ozone levels.

The Montreal Protocol, agreed in 1987, has phased out many ozone-depleting chemicals such as the chlorofluorocarbons (CFCs) that were once in widespread use as refrigerants.

Use of some of these continues at a much lower level, with poorer developing countries allowed more time in which to switch away from substances essential to some of their industries.

But even though concentrations of these chemicals in the atmosphere are falling, they can endure for decades, and the Antarctic ozone hole is not expected to recover fully until 2045-60.

The WMO unveiled its Arctic data at the European Geosciences Union (EGU) annual meeting in Vienna.