
Subject: The Bush Administration Distorts Science to fit its agenda

Posted by [Fabian](#) on Thu, 11 Mar 2004 03:51:27 GMT

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Global Warming

The earliest accurate temperature readings started in 1602, when Galileo invented the mercury thermometer. Most official temperature readings are at places like airports, so does a higher temperature tell you about climate or about the effect of paving rural landscapes?

In 1979, when the satellite record began, there has been no discernible global warming, despite predictions from computer models. In fact, the data actually show a slight cooling.

The climate is something that changes all the time, and any scientist knows that it is normal for a climate to change. What scares some scientists is that the recent change in temperature is happening at an unusually rapid rate. However, data on oxygen isotopes in ice and sea-floor cores indicate that the temperature in Greenland changed 7 degrees in as little as twenty years! This would be the equivalent of going from Boston weather to Miami weather in two decades.

Ozone Depletion

It is true that chlorofluorocarbons (CFCs), make their way, because of their high stability, up to the ozone layer. There they react with sunlight to produce chlorine, which acts as a catalyst to break up ozone molecules.

CFCs have been banned in most countries, however. So what accounts for the ozone hole over Antarctica? Well, this happens because Antarctica is the coldest place on the planet. During Antarctica's long nights, polar stratospheric clouds (PSC), made of tiny ice crystals, form high up in the ozone layer. Most chlorine in the atmosphere is taken up into molecules of hydrochloric acid deposits on the surface of the ice crystals, and chemical reactions take place that form chlorine oxide (ClO). Chlorine oxide does not break up ozone molecules by itself, but in the presence of sunlight, it dissociates to form ordinary chlorine, which can disrupt the ozone.

During Antarctic winter, then, the supply of chlorine oxide builds up and there is no sunlight to get rid of it. When the sun returns in the spring, the chlorine oxide breaks up, freeing the chlorine. The result is a burst of ozone destruction--this is what causes the ozone hole. So yes, Crimson was correct.

Source: "From Quarks to Atoms." James Trefil
