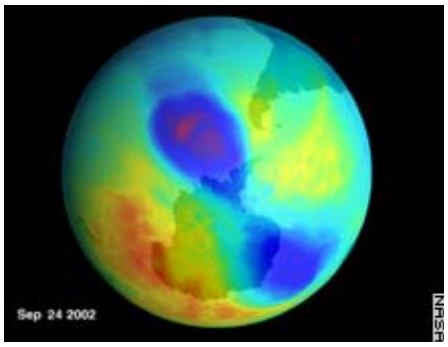
Report: Antarctic ozone hole sets record

Friday, September 12, 2003 Posted: 9:50 AM EDT (1350 GMT)

LONDON (Reuters) -- The gaping, man-made hole in the ozone layer over Antarctica has hit record proportions for this time of year and could get bigger still within the next few days, a leading scientist said on Friday.



At just short of 28 million square kilometers, the hole is a fraction under the absolute record of 28.5 million, but it has historically peaked in the second week in September and therefore could theoretically grow further, British Antarctic Survey (BAS) scientist Jonathan Shanklin told Reuters.

"It was the largest it has ever been during August, and we are waiting to see what happens over the next few days," Shanklin told Reuters by telephone from BAS headquarters in Cambridge.

The stratospheric ozone layer protects the earth's surface from damaging ultraviolet rays that can cause skin cancer.

In 2002 the hole suddenly shrank, raising hopes it had turned the corner and was starting to close. But Shanklin said scientists now believed this was an abnormality due to atmospheric conditions, and that the 2003 expansion was back to more normal activity.

Shanklin said there was no direct link between the hole and the sharp rise in skin cancers worldwide, which he said was closely linked to changing lifestyles. However, he said the general thinning of the ozone layer elsewhere because of chemical depletion was almost certainly involved in the rise.

Shanklin, one of the scientists who first discovered the ozone hole in 1985, said he and his colleagues were still at a loss to explain exactly why it had got so big in August.

"The ozone hole is continuously in motion. It is rather like a spinning top," he said.

The 1985 discovery forced a radical review and ultimately a complete change in many industries that were belching ozone-depleting chemicals into the atmosphere.

The consequent drop in output of these chemicals began to bite in 1994 and is now some

six percent down on its peak.

However, the time lag in the chemicals reaching the upper atmosphere and attacking the key stratospheric ozone layer has meant that the benefits of the output reduction has taken several years to feed through.

"We don't know if the hole has finally peaked, is over the top and on the way down or still has a bit further to go," Shanklin said.

"We are sure that we are pretty near the top, but we could have to wait another decade to be able to say definitively that the worst is over and it is starting to recover," he added.

Shanklin said it was vital for countries to stick to the Montreal Treaty curbing the emission of ozone depleting chemicals.

But he stressed that until there was similar accord on greenhouse gases it was impossible to tell what effect there would be on the atmosphere.

Most major polluting nations have signed up to the Kyoto treaty curbing carbon dioxide emissions. But the United States has refused, even going so far as to refuse to accept that the gas is a pollutant.

"It would be excellent if all countries in the world pulled together on greenhouse gases," Shanklin said. "The discovery of the ozone hole proved we can change our atmosphere so easily. It was a big surprise. There may well be further surprises in store for us."