

This is your planet; this is your planet in peril

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NECC Observer

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In 1987, environmental scientists around the world began to sound like modern-day Chicken Littles.

The ozone layer above the Antarctic, normally about 3 millimeters thick, had withered to less than half its normal thickness. No, they warned, the sky wasn't falling — it was disappearing.

Last year, their cries again rose, as the ozone layer diminished to the thinnest level ever recorded, surpassing the 1987 "hole." And scientists are expecting the downward spiral to continue.

"We broke the old record," said Dr. Rich McPeters, head of the ozone process team at NASA's Goddard Space Flight Center in Greenbelt, Md. "The concern is that the Antarctic is sort of an early warning of things we've been saying for years. 'Chlorofluorocarbons are destroying the ozone layer.' This is the first time we can point to something and say, 'There it is.'"

Tabbed the "Antarctic Hole," the area of ozone depletion in the south pole is almost as big as the United States. Scientists blame chlorofluorocarbons (CFCs), a chemical used in aerosol spray cans, refrigeration, air conditioning units and as an industrial solvent, for the reduction in the ozone layer.

Ongoing research by the National Oceanic and Atmospheric Administration's (NOAA) satellite, the National Environmental Data Information Service (NEDIS) indicates the Antarctic hole may be widening as well as thinning, said NEDIS spokesman Frank Lapore.

"The hole did show evidence of spreading close to the tip of South America to the higher latitude," Lapore said. "If one attributes this to the man-made CFCs, we certainly want to be looking at curtailing this as we are in the process of doing."

Located in the stratosphere, ozone absorbs ultraviolet rays which cause skin cancer, damage crops and kill aquatic life. Though ozone molecules constantly



COMPUTER GRAPHIC. OHIO SUPERCOMPUTER CENTER

This supercomputer-generated visualization depicts the gaping wound in the ozone layer above Antarctica. It may be a good time to invest in sunscreen lotions.

reproduce and die, they become vulnerable to the chlorine in CFCs in extremely cold temperatures, such as the South Pole. The chlorine destroys the ozone molecules at an accelerated speed, thinning the ozone layer.

A movement to ban all other CFCs began in 1987 with the signing of the Montreal Protocol, an international treaty that promised to reduce the use of CFCs by 50 percent before the end of the century.

Research conducted by NASA last spring showed that the ozone layer over the United States was thinning at twice the rate of previous years. Ozone reduction normally

occurs in the winter, but the study showed it was continuing into the spring above the U.S.

Shortly after, the Montreal Protocol was amended in London. The amendments call for the complete curtailing of the production and importation of CFCs by the year 2000. First World nations participating in the treaty pledged about \$160 million to helping poorer countries meet the treaty.

EPA spokesman David Ryan said the 1990 U.S. Clean Air Acts complement the Montreal Protocol. He said the acts impose strict guidelines on the use of CFCs and many other environmentally harmful chemicals.

But movements to save the ozone are not progressing fast enough for some. Greenpeace spokeswoman Jeanne Whalen said the government has not cracked down hard enough on companies, such as DuPont, which use CFCs in their manufacturing. She said the EPA has allowed companies to replace CFCs with hydrochlorofluorocarbons (HCFCs), which also destroy ozone, but at a slower rate than CFCs.

"The writing is on the wall," Whalen said. "It was easy for the U.S. and other industrialized nations to take it not so seriously because it's over in the Antarctic and no one lives there. But the ozone layer has been damaged more than we thought. People don't understand how the political process has been holding up the solution."

The United States needs a national energy policy to regulate energy sources and eliminate the use of environmentally dangerous substances, according to Robert Stuart, environmental advocate from the U.S. Public Interest Research Group.

Stuart said it is already too late to stop the damage done to the ozone layer since the 1930s when aerosol was introduced.

"The best way to combat it is to rapidly phase out the use of those things that deplete the ozone layer," he said. "It's moving in the wrong direction. We have two main ozone depleting substances in the air already. The best we can do is slow the decline."

But time may be running out. Scientists are finding evidence that the Arctic is also suffering from a depleted ozone. Research conducted by the NOAA showed an increase in ozone-destroying chlorine compounds. The area is being carefully monitored by scientists who fear the opening of another ozone hole.

And underway in Bangor, Maine, is a scientific study using aircraft to measure the ozone layer over the Northeast. The NOAA and NASA team, expects to find small areas showing significant depletion. But McPeters said it is unlikely that a hole as big as the Antarctic could ever develop over the U.S.

"The decrease we're seeing at mid-latitudes...will start looking bigger," he said.

Environment becomes everyone's business

By ROGER PRICE

Daily Nebraskan, U. of Nebraska

Call it environmental awareness. Call it environmental consciousness. Call it environmental grandstanding. But whatever you choose to call it, corporations in the United States have been honing in on the environmental market in recent years.

Companies like Chevron, McDonalds and Anheuser-Busch have been pumping money into their planet-saving programs to help save the earth.

The increase in corporate advertising emphasizing environmental issues in recent years is a spin-off of space exploration, according to an official in the Office of Environmental Programs at the U. of Nebraska-Lincoln.

A new respect for the earth was gained when man first journeyed into space, said Larry Schulze, who is a coordinator in the Office of Environmental Programs. "We realized for the first time that our earth is a living organism, and resources are not generated anew but continuously recycled," he said.

Schulze said respect for the earth is shared by almost everyone involved in the consumer chain, including the manufacturers, distributors, wholesalers and consumers.

While corporations may be trying to attract customers with environmental advertising, he said many companies are merely pointing out long-standing programs of environmental stewardship.

Ralph Wooten, staff specialist for corporate advertising at Chevron, agreed. He said advertisements featuring the environment, which Chevron has run since 1985, are built around "the things that Chevron people are doing to preserve, protect or enhance the environment."

Wooten said the company views the ads as a public affairs campaign more so than a marketing campaign. The 13 different environmentally oriented television commercials that Chevron has produced, he said, have improved the company's image with the consumer.

And Anheuser-Busch has jumped on the environmental-awareness wagon with ads and commercials that tell customers about the beer company's efforts to save the environment. It is a campaign that Anheuser-Busch takes seriously, a company spokeswoman said.

She said the company's environmental efforts include encouraging recycling, limiting pollution and protecting wildlife.

"Because our consumers are more interested in the environment now," she said, "the time seemed right to communicate our commitment with them."



GRANT HALVERSON, DAILY TAR HEEL, U. OF NORTH CAROLINA

Companies like McDonald's proudly display their new-found environmental awareness.