

Filling the hole in the ozone layer

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For The Sentinel

A sonic boom that shook a wide swath of the Central Valley last month was in fact part of a program to help save the earth's ozone layer. The boom came during experiments conducted aboard a retired spy plane.

An SR71 Blackbird, which was reportedly the highest, fastest flying production aircraft in existence left a wake of at least 70-mile wide sonic boom, according to Don Nolan, a public relations officer from NASA Dryden Flight Research Center in California.

Nolan said that the SR71 is just one of several planes on loan from the U.S. Air Force to the National Aeronautics and Space Administration to conduct scientific experiments at high altitudes that could potentially help the earth's environment.

The most recent flight involved tests directed by Dr. Alfred Wong, a plasma physicist at the University of California at Los Angeles, who says he's come up with the answer to the hole in the earth's ozone layer.

Wong says his plan could fill the gap in the ozone layer by 50 percent within the next five years at a cost of approximately \$500 million. Scientists and laymen have discussed for years the dangers of the shrinking ozone layer. Wong's plan is the first that proposes going up 70,000 feet into the earth's stratosphere and repairing the damage directly.

Wong's ambitious proposal is being backed by the state of Alaska as well as the federal government. Nevertheless, skeptics abound.

Environmentalists say that the earth's ozone problem starts here on earth and has to be solved on earth by reducing and/or eliminating chlorofluorocarbons — chemicals that attack ozone. CFCs are mostly found in air conditioners, refrigerators and aerosol spray cans.

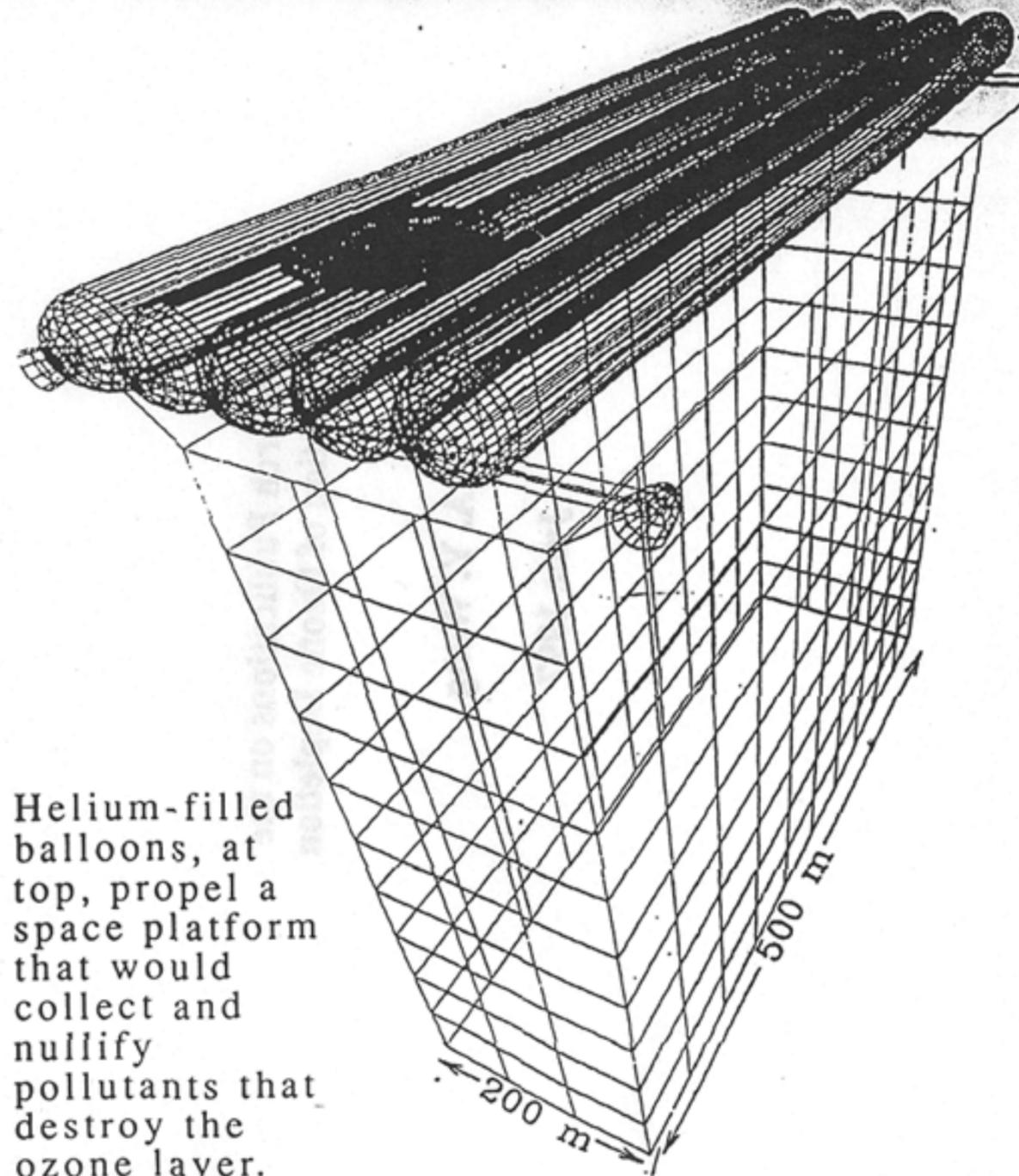
Some skeptics even go so far as to say that there is no ozone problem.

But according to Wong, the ozone layer, which is concentrated in the stratosphere about 15 miles above the earth, is necessary for survival because it absorbs solar radiation which is harmful to all living cells.

Solving the ozone layer problem is of crucial growing importance, says Wong, because a projected annual 10 percent decrease in the ozone layer will lead to a 26 percent increase in the incidence of skin cancer, 150,000 new cases of blindness due to cataracts and a weakening of immune systems.

Skin cancer has escalated to such a degree in recent years that children in Australia, where the hole in the ozone layer is said to be one of the worst in the world, are required to wear hats to school on sunny days, he said. Skin cancer is also the fastest growing type of cancer in the U.S., aside from lung cancer in women, according to the National Institute of Cancer Research Center.

Wong says the ozone layer is being destroyed at a steady rate every day. Once the CFCs are "up there, they're up there." They will continue interacting with and destroying ozone until they're physically removed from the stratosphere.



Helium-filled balloons, at top, propel a space platform that would collect and nullify pollutants that destroy the ozone layer.

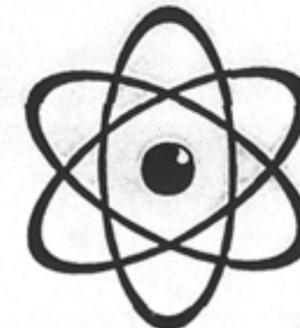
"We already have pollutants up there, so it's not so much a matter of stopping them," Wong says. "Even if we stopped today, we have 40 to 100 years worth of pollutants up there that we have to deal with. Given our modern day life styles, solving the problem will take a combination of factors. It's like cleaning a river. If you don't keep cleaning it, it will simply clog up again."

Wong's plan would involve using 500 meter-long curtains of zinc or aluminum (at a cost of \$20 million

each) lifted into the earth's stratosphere by helium balloons.

As the platform rises and the sun hits the curtains, electrons from the platform would be released from the metal which would deliver electrostatic charges to the CFCs, thereby neutralizing them and rendering them harmless to the ozone.

The neutralized CFCs would then either be collected by the curtains and dragged back down to earth for



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cleaning or else they would be blasted off into outer space with the help of high powered radio waves generated either from airship platforms or transmitters on land.

While these curtains conceivably could be used one day to cleanse the stratosphere directly over major cities throughout the globe, Wong hopes to begin work at the North and South poles. He says the problem with the ozone layer is the worst there because the CFCs migrate from the warmer parts of the earth to the colder temperatures and are collected in concentrated amounts at the poles.

Atmospheric scientists, however, criticize Wong's plan by saying that the earth's atmosphere shouldn't be tampered with.

Wong says he is not trying to add chemicals to the earth's stratosphere, but is simply trying to clean it up.

Wong says his experiments show his plan works. In a large atmospheric chamber he created a healthy stratosphere and injected it with CFCs until all the ozone was depleted. Then, by electrically charging the model atmosphere, he disabled the CFCs until the ozone was replenished.

While the half-billion-dollar cost of the project is daunting to some, Wong says it's not a high price to pay to solve the ozone problem.

Bill Andrews, a UCLA public relations officer, says that the platforms potentially could even pay for themselves because they could replace satellites, which cost from \$50 to \$100 million each, as communication bases around the globe.

Right now, Wong says that he is taking the experiments step by step to make sure they work before trying to expand on a larger scale.

In the coming months, Wong has plans to test measuring devices of the ozone layer on the SR71 Blackbird on a flight to Alaska where he has had 14 years' experience conducting experiments into the effect of high power radio waves.

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