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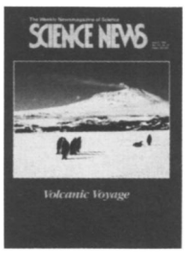
This Week

Research Notes

Articles

Cover: A group of emperor penguins poses against the hulking backdrop of Mt. Erebus, one of Antarctica's most active volcanoes. Geologists have failed several times to reach the bottom of Erebus' dangerous crater. Their hope now rides on Dante, an eight-legged robot that will soon attempt a descent into the volcano. (Photo: P. Kyle)



Departments

Letters

Seasonal skies

I want to fuss about something that is a little hazy to me in "Haze Clouds the Greenhouse" (SN: 4/11/92, p.232). Though there is no fault in the caption of the photographs of the Washington, D.C., skyline, it seems to me that the context in which the photographs are used implies a condition much worse than that which exists.

Comparison of the two photographs gives us no information about the greenhouse effect or sulfur pollution. The photographs were made at times of the year and times of day that could almost be calculated to give the most dramatic difference. In fact, the only way the two photos are the same is that they were made from the same location.

On one hand, we have a crisply detailed, front-lighted photo against a brilliant blue sky, made on a breezy summer afternoon roughly nine hours after local sunrise. For comparison, we have a sharply side-lighted photograph made on a calm winter morning approximately two hours after local sunrise.

If you question wind conditions, look at the water: It's choppy from a breeze on the May afternoon and dead calm on the winter morning.

Everett Hertenstein Jr.
Nashville, Tenn.

Lighting angle and time of year do affect visibility, as you note. It would be best to choose two photographs from the same month and time. But the two views need not have the same wind conditions. In fact, the difference in wind conditions helps show the effect of pollution. Bruce Polkowsy of the Environmental Protection Agency in Triangle Park, N.C., explains that calm conditions, especially over a broad region, allow pollutant aerosols to accumulate in an area, reducing visibility. Windy conditions, however, prevent that buildup of aerosols, leaving skies clearer. The different wind conditions therefore provide a comparison between a clear sky and one with higher levels of aerosols.

– R. Monastersky

As a meteorologist, I have often wondered how much more aggressive our efforts to reduce air pollution would be if more people realized that the phenomenon so euphemistically referred to as "haze" over the eastern United States was really a vast shroud of pollution. Not only does sulfur haze sharply limit visibility, but its production is also very much related to the problem of acid rain. And haze is the reason why beautiful sunsets and bright blue skies become so infrequent over the eastern states each summer.

Stephen Corfidi
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