

SCIENCE

LETTERS

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Patriot Missile Controversy

A 3 April item in *ScienceScope* (p. 19) reports that the editor of the journal *International Security* and its editorial board would not speak to reporters about the controversy over Theodore Postol's analysis of the performance of the Patriot missile in the Gulf War. We have no such reluctance.

With respect to allegations that the Raytheon Corporation, Patriot's prime contractor, pressured *International Security* not to publish Postol's article, the facts tell the story: we did publish Postol's article, and we stand by our publication of it, as we stand by all our articles in this important field. As a journal that promotes open scholarly discussion of security issues, we are also extremely concerned about any use of the classification system to stifle debate or intimidate scholars.

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Kuwait Oil Well Fires

Richard Stone, in his Research News piece (13 Mar., p. 1357) about the results of a risk assessment our group conducted for U.S. citizens working in Kuwait City during the recent oil well fires, gives the impression that the fires created a major increase in cancer risk. Actually, our results point to the opposite conclusion for residents of Kuwait City.

The available evidence indicates that ambient concentrations of carcinogens such as benzene and polycyclic aromatic hydrocarbons were elevated during periods affected by the smoke plumes, but only up to concentrations that are at or below those typical for major urban areas (for example, benzene: 9 milligrams per cubic meter; benzo[a]pyrene: 4 nanograms per cubic meter) (1, 2). In fact, monitoring teams found generally low concentrations of sulfur dioxide and carcinogens in Kuwait City, in spite of initial expectations of a much larger impact (2–4). These concentrations translate into cancer risk estimates for Kuwait City that are typical of U.S. cities.

Our cancer risk estimates for Kuwait City are actually overestimates, because we assumed that exposure would be for a 2-year period; in fact, the fires were extinguished within 10 months. Even with the longer exposure assumption, total cancer risk estimates were no higher than six (possible cases) in 10^6 (exposed individuals), which is within the range of acceptable risk (one in 10^6 to one in 10^5) in many regulatory arenas (5, 6).

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REFERENCES

1. J. J. Shah and H. B. Singh, *Environ. Sci. Technol.* 22, 1381 (1988).
2. P. Lameloise and G. Thibaut, "Measurement campaign of the Regional Mobile Laboratory for Measurement of Air Quality in Kuwait" (French Monitoring Team Report, Airparif, Paris, 27 May 1991).
3. *J. Air Waste Manage. Assoc.* 41, 736 (1991).
4. "U.S. Interagency Team interim report: Kuwait oil fires" (report prepared for the U.S. Coast Guard, the Environmental Protection Agency, the Department of Health and Human Services, the National Oceanic and Atmospheric Administration, and the Department of Energy, Washington, DC, 3 April 1991).
5. *Risk Assessment Guidance for Superfund*, Vol. I, *Human Health Evaluation Manual* (Environmental Protection Agency, Washington, DC, 1989).
6. *Guidelines for Assessing Health Risks from Proposed Air Pollution Sources* (Rhode Island Department of Environmental Management, Providence, RI, 1990).

Early Humans in North America

I read with interest the article by Tim Appenzeller (*News & Comment*, 21 Feb., p. 920) regarding the purported evidence presented by Richard MacNeish of early humans in New Mexico, dated as being more than 30,000 years old. I have worked extensively on the taphonomy of cave deposits and believe that MacNeish's findings need comment.

Paleontologists studying the taphonomy of fossil remains from caves know how complicated these deposits can be. Many animals, especially mammalian carnivores and avian predators, have used these caves as dens and roosts, leaving behind an accumulation of bones from their prey. Packrats also cause mixing of plant and animal remains of different ages in these caves when