

AAAS Annual Meeting

Westin Hotel,
Renaissance Center

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Detroit, Michigan

For details about the meeting
program, see the 25 February
or 1 April issues of *Science* or
call (202) 842-9595.

Pendery *et al.*, was unprecedented in my experience of more than 20 years as editor.

The Sobells, in writing, threatened us with legal action while we were in the initial phase of considering the paper. Shortly after, we received a letter from their attorney. Under such circumstances, prudence dictates that contact between the principals cease and that one deal with the matter through attorneys.

The report that we published in our 9 July issue was very carefully edited. It was extensively reviewed, including evaluation by an expert statistician. Painstaking efforts were made to ensure an absence of comment about the integrity of the Sobells. We required that assertions made about patients' histories be documented by court records, police records, hospital records, or affidavits. The final draft was checked repeatedly, sentence by sentence, to ensure that supporting evidence was available. In crucial instances, two or more independent documents corroborated statements made.

For years the Sobell paper of 1972 went virtually unchallenged. Their work received a large play in the media. Attempts by Mary Pendery to examine the basic data and to follow up on patients' subsequent histories were impeded by repeated legal action by the Sobells. The avenue of a technical comment has been and remains open to the Sobells. They have not so far availed themselves of it.—PHILIP H. ABELSON

Millisecond Pulsar

In M. Mitchell Waldrop's excellent article about the Millisecond Pulsar (Research News, 18 Feb., p. 831), there are two minor errors. First, the spectrum of 4C21.53 falls rapidly with frequency, as does the spectrum of pulsars. Second, while the ratio of period (P) to period derivative (\dot{P}) gives a time scale of billions of years, I do not think that its age is much greater than 10^6 years. The pulsar is very near the galactic plane. Since most pulsars move at 100 kilometers per second, this indicates an age near 10^6 years. Also, the original period was probably not much less than $P_0 \sim 1.5$ milliseconds; if so, the age is not P/\dot{P} , but $P/2\dot{P} \times (1 - (P_0/P)^2)$.

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Nuclear Power in Space

While we do not dispute any statements of fact in William J. Broad's short article "Fallout from nuclear power in space" (News and Comment, 7 Jan., p. 38), we believe that an unnecessarily frightening impression may have been received by *Science* readers. For example, Broad's conclusion that "The contamination was not unprecedented but it was quite large"—referring to the plutonium-238 from the reentered and burned SNAP-9A power supply—does not follow from data presented in table 3 of the paper to which he refers (1). The global plutonium deposited by 1970 was made up of ^{239}Pu and ^{240}Pu (325 ± 36 kilocuries), ^{238}Pu from weapons (7.7 ± 0.9 kilocuries), and ^{238}Pu from SNAP-9A (13.9 ± 2.2 kilocuries). The other two alpha-emitting isotopes (masses 236 and 242) were virtually too low in concentration to be measured.

Indeed, the total ^{238}Pu on the ground before the SNAP-9A incident was a little more than 2 percent of the total plutonium, and the "... threefold increase of plutonium-238 contamination ..." mentioned at the end of Broad's fourth paragraph increased the fraction to 4 percent. In this context it does not seem reasonable to refer to the additional plutonium as "large," nor does questioning the possible health effects of the accident appear practical in light of the small overall risk attributed to the total environmental ^{238}Pu (2).

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References

1. E. P. Hardy, P. W. Krey, H. L. Volchok, *Nature (London)* **241**, 444 (1973).
2. United Nations Scientific Committee on the Effects of Atomic Radiation, *Ionizing Radiation: Sources and Biological Effects. UNSCEAR 1982 Report to the General Assembly* (United Nations, New York, 1982).

Erratum: In the report "Eruption of El Chichón volcano, Chiapas, Mexico, 28 March to 7 April 1982" by J. M. Hoffer *et al.* (24 Dec., p. 1307), the millimeter readings in figure 2 (p. 1308) were in error by a magnitude of one; the 100, 200, 300, 400, and 500 mm contours should have been 10, 20, 30, 40, and 50 mm.

Erratum: The report "Topography, albedo-temperature feedback, and climate sensitivity" by G. E. Birchfield and J. Wertman (21 Jan., p. 284) should have included the following acknowledgment as note 11: "This work was partially supported by grant 8111138 from the Climate Dynamics Section of the National Science Foundation."