Closing of the National Tritium Labeling Facility

THE CIRCUMSTANCES REGARDING THE National Institutes of Health's (NIH's) decision to close the National Tritium Labeling Facility (NTLF) are disturbing (News of the Week, "Tritium lab to close after loss of NIH funds," by J. Withgott, 2 Nov., p. 977). As a resident of Berkeley, California, and a scientist working in nuclear medical imaging at Lawrence Berkeley National Laboratory, I know that the NTLF has long been the target of a small but vocal group of antinuclear activists, the Committee to Minimize Toxic Waste, who say that any exposure to radiation, however small, is dangerous. I believe that the actual danger is negligible and that the results of the numerous inspections and accident analyses that have been performed at the insistence of this group support this conclusion.

NIH's stated reasons for closure, "low publication rates, inadequate service to NIH grantees, and failure to fill a safety position," according to Withgott's article, are unconvincing and inconsistent with the excellent scores the facility received during the peer-review process. The closure was precipitous and outside the normal funding cycle, suggesting unusual circumstances. It seems unlikely that the NIH had any significant concerns about the public safety threat posed by the NTLF, as the response of a scientific body to a safety concern would have been open fact finding. I can only conclude that NIH closed the NTLF to mollify an extremely small number of people.

An organizational chart posted on NIH's Web site (*1*) states that "The National Institutes of Health seeks to accomplish its mission by...exemplifying and promoting the highest level of scientific integrity, public accountability, and social responsibility in the conduct of science." In its recent dealings with the NTLF, the NIH deserves low marks in each of these categories.

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References and Notes
1. The chart is available from http://www.nih.gov/about/.

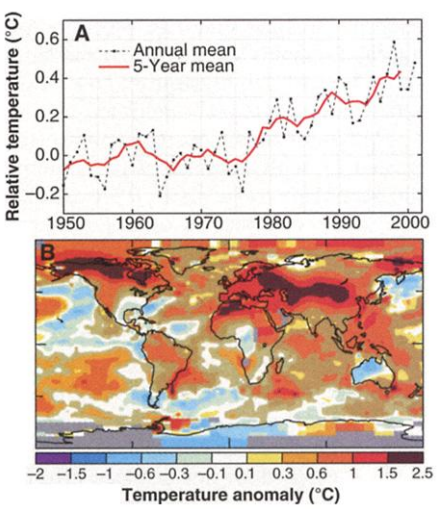
Letters to the Editor

Letters (around 300 words) discuss material published in *Science* or issues of general interest. They can be submitted by e-mail (science_letters@aaas.org), the Web (www.letter2science.org), or mail (1200 New York Ave., NW, Washington, DC 20005, USA). Letters are not acknowledged upon receipt, nor are authors generally consulted before publication. Whether published in full in or in part, letters are subject to editing for clarity and space.

Global Warming Continues

THE SECOND WARMEST GLOBAL SURFACE temperature in more than a century of instrumental data (*1*) was recorded in the 2001 meteorological year (December 2000 through November 2001) (see panel A). The calendar year 2001 will also be the second warmest year on record, as the 11-month temperature anomaly exceeds that in the next warmest years (1990 and 1995) by almost 0.1°C. For our analysis, we used recently documented procedures for data over land (*1*) and for sea surface temperatures (*2*).

The global warmth in 2001 is particularly meaningful because it occurs at a phase of the Southern Oscillation in which the tropical Pacific Ocean is cool (see panel B). The record warmth of 1998, in contrast, was bolstered by a strong El Niño that raised global temperature 0.2°C above the trend line (see panel A).



(A) The global annual surface temperature relative to 1951–1980 mean based on surface air measurements at meteorological stations and satellite measurements of sea surface temperature. (B) Temperature anomaly for December 2000 through November 2001.

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Global surface air warming over the past 25 years is ~0.5°C, and in the past century is ~0.75°C (*1*). The recent surface warming contrasts with warming of only ~0.1°C in the troposphere over the past 22 years (*3*); however, surface and tropospheric warmings are similar over the past 50 years (*4*). The greatest warm anomalies in 2001 were in Alaska-Canada, in a band from North Africa to Central Asia, and in the Antarctic peninsula (Palmer Land). The Indian and Western Pacific oceans were unusually warm, continuing a trend of recent decades (*1*).

The North Atlantic Ocean is notably warmer than the 1951–1980 climatology. Unusually cool conditions of recent decades, which were centered in Baffin Bay and extended south and southeast of Greenland (*1*), have given way to warm anomalies in the past 5 years.

Overall, the 2001 temperature extends the unusual global warming of recent decades. This warming is considered to be a consequence of anthropogenic greenhouse gases (*5*), and thus the high 2001 temperature will likely invigorate discussions about how to slow global warming.

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4. National Research Council, *Reconciling Observations of Global Temperature Change* (National Academy of Sences, Washington, DC, 2000).
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Minimizing Effects of CO_2 Storage in Oceans

THE POTENTIAL NEGATIVE BIOLOGICAL AND environmental impacts of sequestering carbon dioxide (CO_2) in the ocean by means of ocean fertilization (*1*) or direct CO_2 injection (*2*) are discussed in a Policy Forum and Per-