

Industry Group Assails Climate Chapter

The scientific debate about whether human activity is warming global climate subsided late last year when the world's leading climate researchers agreed that the answer is probably yes. But this month the political debate heated up by several degrees when an industry group charged that revisions to a crucial chapter in a United Nations (UN) report on climate change violated peer review and amount to "scientific cleansing" of doubts about human influence on climate. The charges, made 2 weeks ago, have sparked a flurry of editorials and articles repeating the charges in publications including *The Wall Street Journal*—and a spirited defense by climate researchers.

The focus of the controversy, chapter 8 in the latest report of the UN's Intergovernmental Panel on Climate Change (IPCC) Working Group I, lays out research advances since 1990 that have bolstered confidence that human activity is at least partly to blame for the gradual warming of the globe. They include better models of climate variability and a better understanding of the effects of sulfate aerosols and ozone loss, all of which tend to obscure the signal of greenhouse warming (*Science*, 8 December 1995, p. 1565). When these effects are accounted for, the warming signal seems to emerge, said the chapter. But the Washington, D.C.-based Global Climate Coalition (GCC)—a group supported by oil and coal producers and utilities—argued in a nine-page analysis and in letters to members of Congress that changes made after the draft report was issued last fall downplayed uncertainties about this conclusion.

"When the final report came out, there were sections that were not there," said John Shlaes, executive director of the coalition. "Why were they taken out when those were important elements to educate policymakers?" The answer is simple, says Ben Santer, a Lawrence Livermore National Laboratory researcher who was the lead author on the chapter and says that he made the changes himself. Reviewers requested them. He says that the coalition and other critics can't impugn the science underlying the report, so "they attack the process, the IPCC itself and the scientists."

The business coalition was particularly upset by the disappearance of the chapter's concluding summary. That section had noted that even the most telling indicator to date of human influence—so-called pattern-based computer simulations that marry the effects of aerosols and greenhouse gases to show a pattern of warming similar to the observed one—doesn't conclusively tie any change to human influence. The coalition also raised an outcry over the deletion of a phrase say-

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A Major Deception on 'Global Warming'

By Frederick Seitz
Last week the Intergovernmental Panel on Climate Change, a United Nations organization regarded by many as the best source of scientific information about the human impact on the earth's climate, released "The Science of Climate Change 1995," its first new report in five years. The report will surely be hailed as the latest and most authoritative statement on

would obey the IPCC Rules—a body of regulations that is supposed to govern panels' actions. Nothing in the IPCC permits anyone to change a section of the report after it has been accepted by the scientific community and the full panel. The participating scientists at "The Science of Climate Change" last November, the full report was accepted in the following month in So-



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—Ben Santer

ing "we do not know" when scientists will be able to identify a human contribution to climate change unambiguously.

The changes were a "disturbing corruption of the peer-review process," wrote Frederick Seitz, ex-president of Rockefeller University and chair of the George C. Marshall Institute, which has also raised doubts about a human influence on climate, in a 12 June op-ed piece in *The Wall Street Journal*. Declared the GCC in its statement: "The changes quite clearly have the obvious political purpose of cleansing the underlying scientific report."

To Santer and other climatologists, it's these accusations that are politically motivated. "This is terrible what's going on, just terrible," says Santer. "I now perceive my own scientific reputation and credibility to be under attack, and that's a very hard position to be in." Backed by his three co-authors—Tom Wigley of the National Center for Atmo-

spheric Research (NCAR), Tim Barnett of the Scripps Institution of Oceanography, and Ebbly Anyamba of the NASA Goddard Space Flight Center—Santer has argued that the governments, organizations, and scientists who reviewed the draft report last October knew it would be changed to take reviewers' comments into account. He adds that the changes simply removed redundancies and fine-tuned the wording to bring the report into line with the scientific consensus.

In the case of the concluding summary, for example, Santer says he "folded [it] into other parts of the chapter" because reviewers had pointed out that, unlike any other chapter, it had summaries at both the beginning and end. As for the phrase he removed, Santer says it overstated doubts that a human effect on climate is already apparent. "The revision is now more accurate and a better reflection of prevailing scientific opinion," he says.

Kevin Trenberth, head of the climate analysis section at NCAR and lead author for chapter 1, agrees. "I think some of that redundancy was removed, but the uncertainty is clearly reflected in the chapter," he says.

Nor did the changes violate IPCC procedures, said Bert Bolin of the University of Stockholm, the IPCC chair, in a letter faxed to the GCC this week. "Your allegations are completely unfounded," he wrote. But he acknowledged that the IPCC had left an opening for such attacks by not presenting the final wording to the delegates—including the Climate Coalition—before it went to press.

—Peter Weiss

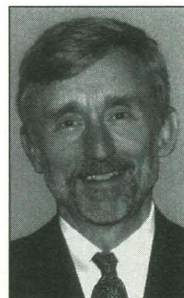
Peter Weiss covers science for the Valley Times in Pleasanton, California.

BIOMEDICAL RESEARCH

Salk Institute Picks a New President

Cell biologist Thomas Pollard of Johns Hopkins University is packing his bags and test tubes and heading for La Jolla, California, where he will take over as president and chief executive officer of the Salk Institute for Biological Studies. As *Science* reported last week (14 June, p. 1575), Pollard was the search committee's top choice, and on 14 June, the Salk's chairman of the board, Frederick Rentschler, announced that the deal was done. "While this has been a long search, it has ended with the right individual," wrote Rentschler to the staff.

Pollard, 53, a member of the National Academy of Sciences (NAS) who specializes in the molecular basis of cell movement, plans to continue his research; he will take about half a dozen of the researchers in his lab with



Heading west.
Cell biologist Thomas Pollard.

him. "There's nothing like being the boss and being up against the same challenges the faculty has," says Pollard. Those who know Pollard applaud the choice. "He's a world-class scientist. And he has an appreciation of science policy," says marine biologist John Burris, head of the Marine Biological Laboratories in Woods Hole, Massachusetts, who has worked with Pollard on NAS committees.

The Salk has been searching for a permanent president since 1994, when cancer epidemiologist Brian Henderson resigned. Nobel laureate Francis Crick and former March of Dimes executive Charles Massey ran the institute jointly before resigning last September. Pollard will take over on 1 July.

—Jon Cohen