

# HOW A SENTENCE CHANGED CLIMATE SCIENCE: LESSONS LEARNED FROM THE 1995 CLIMATE REPORT



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**1:30-2:30 p.m.**

**Burton D. Morgan Center, Room 121**

In November 1995, after three days of deliberations in Madrid's Palacio de Congresos, the Intergovernmental Panel on Climate Change (IPCC) reached the historic finding that "the balance of evidence suggests a discernible human influence on global climate". This sentence changed the world. While other individuals and national scientific organizations had reached similar conclusions before Madrid, the "discernible human influence" statement marked the first time that the international climate science community had spoken so clearly and forcefully. The reaction was swift. The "discernible human influence" conclusion led to Congressional investigations, charges of "scientific cleansing", allegations of corruption of the peer-review process and professional misconduct, and claims of political tampering. Santer spent several years addressing such criticism. This lecture is a reflection on some of the scientific and personal lessons he learned after publication of the IPCC's 1995 Report. Many of these lessons still have relevance in today's world.

Ben Santer's research focuses on such topics as climate model evaluation, the use of statistical methods in climate science, and identification of natural and anthropogenic "fingerprints" in observed climate records. His early research on the climatic effects of combined changes in greenhouse gases and sulfate aerosols contributed to the historic "discernible human influence" conclusion of the 1995 Report by the Intergovernmental Panel on Climate Change (IPCC). His recent work has attempted to identify anthropogenic fingerprints in a number of different climate variables, such as tropopause height, atmospheric water vapor, the temperature of the stratosphere and troposphere, ocean heat content, and ocean surface temperatures in hurricane formation regions. In 1992, Santer joined LLNL's Program for Climate Model Diagnosis and Intercomparison. He served as convening lead author of the climate-change detection and attribution chapter of the 1995 IPCC report.

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