

Regarding the National Policy Statement on Climate Change of the APS Council: An Open Letter to the Council of the American Physical Society

As physicists who are familiar with the science issues, and as current and past members of the American Physical Society, we the undersigned urge the Council to revise its current statement* on climate change as follows, so as to more accurately represent the current state of the science:

Greenhouse gas emissions, such as carbon dioxide, methane, and nitrous oxide, accompany human industrial and agricultural activity. While substantial concern has been expressed that emissions may cause significant climate change, measured or reconstructed temperature records indicate that 20th - 21st century changes are neither exceptional nor persistent, and the historical and geological records show many periods warmer than today. In addition, there is an extensive scientific literature that examines beneficial effects of increased levels of carbon dioxide for both plants and animals.

Studies of a variety of natural processes, including ocean cycles and solar variability, indicate that they can account for variations in the Earth's climate on the time scale of decades and centuries. Current climate models appear insufficiently reliable to properly account for natural and anthropogenic contributions to past climate change, much less project future climate.

The APS supports an objective scientific effort to understand the effects of all processes – natural and human -- on the Earth's climate and the biosphere's response to climate change, and promotes technological options for meeting challenges of future climate changes, regardless of cause.

* The statement of the APS Council, adopted on November 18, 2007 is as follows:

“Emissions of greenhouse gases from human activities are changing the atmosphere in ways that affect the Earth's climate. Greenhouse gases include carbon dioxide as well as methane, nitrous oxide and other gases. They are emitted from fossil fuel combustion and a range of industrial and agricultural processes.

The evidence is incontrovertible: Global warming is occurring. If no mitigating actions are taken, significant disruptions in the Earth's physical and ecological systems, social systems, security and human health are likely to occur. We must reduce emissions of greenhouse gases beginning now.

Because the complexity of the climate makes accurate prediction difficult, the APS urges an enhanced effort to understand the effects of human activity on the Earth's climate, and to provide the technological options for meeting the climate challenge in the near and longer terms. The APS also urges governments, universities, national laboratories and its membership to support policies and actions that will reduce the emission of greenhouse gases.”

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Harold M. Agnew

Director, Los Alamos National Laboratory (1970 -1979)

President, General Atomics Corporation (1979 -1984)

White House Science Councilor (1982 -1989)

E.O. Lawrence Award 1966, Enrico Fermi Award 1978, Los Alamos Medal (with H.A. Bethe) 2001

Member National Academy of Sciences, National Academy of Engineering, Fellow APS, AAAS

Ralph B. Alexander

Formerly Associate Professor of Physics

Wayne State University

President, R.B. Alexander & Associates

Technology and market analysis in environmentally friendly materials and coatings

Author, *Global Warming False Alarm* (Canterbury)

Moorad Alexanian

Professor of Physics and Physical Oceanography

University of North Carolina Wilmington

Member Mexican Academy of Sciences, American Scientific Affiliation

Robert H. Austin

Professor of Physics

Princeton University

Fellow APS, AAAS; APS Council: 1991-1994, 2007-2010

Member National Academy of Sciences, American Association of Arts and Sciences

Franco Battaglia

Professor of Chemical Physics and Environmental Chemistry

University of Modena, Italy

APS Life-member

Stuart B. Berger

Research Fellow and Divisional Time-to-Market Manager

Xerox Corporation (retired)

Barry L. Berman

Columbian Professor and Chair

Physics Department

The George Washington University

Fellow APS

Edwin X. Berry

Atmospheric Physicist, Climate Physics, LLC

Certified Consulting Meteorologist #180

Member American Meteorological Society

Clifford Bruce Bigham

Atomic Energy of Canada, Ltd. (retired)

Senior Member APS, Sustaining Member CAP

Arie Bodek
George E. Pake Professor of Physics
University of Rochester
Wolfgang K. H. Panofsky Prize in Experimental Particle Physics (APS) 2004
Fellow APS

Lowell S. Brown
Emeritus Professor of Physics
University of Washington
Scientific Staff Member, Los Alamos National Laboratory
Fellow APS, AAAS

Timothy D. Calvin
President, Bearfoot Corporation (retired)
Fabricated rubber products for the DOD, shoe and automobile industries
Member ACS

Gregory H. Canavan
Senior Fellow and Scientific Advisor,
Los Alamos National Laboratory
Fellow APS

Roger W. Cohen
Manager, Strategic Planning and Programs
ExxonMobil Corporation (retired)
Otto Schade Prize (Society for Information Display) 2006
Fellow APS

Steven R. Cranmer
Astrophysicist, Harvard-Smithsonian Center for Astrophysics
Karen Harvey Prize (AAS) 2006
Associate Editor, Journal of Geophysical Research: Space Physics
Member: American Astronomical Society, American Geophysical Union

Jerry M. Cuttler
President, Cuttler and Associates, Inc.
Engineering, consulting, and licensing services for the nuclear power industry
President, Canadian Nuclear Society 1995-1996
Fellow Canadian Nuclear Society, Member American Nuclear Society

David H. Douglass
Professor of Physics
University of Rochester
Fellow APS

Paul J. Drallos
President and CEO, Plasma Dynamics Corporation (retired)
Kinetic & fluid dynamic computer simulation services

Albert G. Engelhardt
President and CEO, Enfitek, Inc.
Environmental control and security systems
Senior Life Member IEEE

Hughen Falconer
Emeritus Professor of Geology
University of Aberdeen
Member American Geophysical Union

Jens G. Feder
Professor of Physics of Geological Processes
University of Oslo
Fellow APS

Peter D. Friedman
Associate Professor of Mechanical Engineering
University of Massachusetts Dartmouth
Member American Geophysical Union, ASME, American Nuclear Society

Rodger L. Gamblin
Inventor
Holder of 44 issued U.S. patents

Ivar Giaever
Institute Professor, School of Engineering and School of Science
Rensselaer Polytechnic Institute
Nobel Prize in Physics 1973
Fellow APS, Member National Academy of Science, National Academy of Engineering

Albert Gold
Associate Dean of Engineering and Applied Sciences (Retired)
Harvard University

Laurence I. Gould
Professor of Physics
University of Hartford
Member Executive Board of the New England Section of the APS
Chairman (2004), New England Section APS

Paul M. Grant
EPRI Science Fellow (retired)
IBM Research Staff Member Emeritus
Senior Life Fellow APS

Howard D. Greyber
University of Pennsylvania (retired)
Formerly Princeton University, LLNL Theory Group, Northeastern University
Member American Astronomical Society, Fellow Royal Astronomical Society

Mike Gruntman
Professor of Astronautics
University of Southern California
Author, *Blazing the Trail. The Early History of Spacecraft and Rocketry* (AIAA)
Luigi G. Napolitano Book Award (International Academy of Astronautics) 2006
Member American Geophysical Union, Associate Fellow AIAA

Sultan Hameed
Professor of Atmospheric Science
School of Marine and Atmospheric Sciences
Stony Brook University, New York

William Happer
Cyrus Fogg Brackett Professor of Physics
Princeton University
Fellow APS, AAAS
Member National Academy of Sciences

Howard C. Hayden
Emeritus Professor of Physics
University of Connecticut
Editor, *The Energy Advocate*
Author, *A Primer on CO2 and Climate* (Vales Lake)

Jack M. Hollander
Professor Emeritus of Energy and Resources, University of California, Berkeley
Vice-President Emeritus, The Ohio State University
First Head, Energy and Environment Division, Lawrence Berkeley Laboratory
Fellow APS, AAAS

David B. Holtkamp
Scientific Staff Member, Physics Division
Los Alamos National Laboratory

James R. Johnson
3M Company (retired)
Member Carlton Society (3M Hall of Fame)
Member National Academy of Engineering

O'Dean Judd
LANL Fellow
Los Alamos National Laboratory (retired)
Technical Advisor and Consultant
Fellow APS, IEEE, AAAS

Andrew Kaldor
Distinguished Scientific Advisor
Manager of Breakthrough Research
ExxonMobil Corporation (retired)
Fellow AAAS, Member ACS

Alexander E. Kaplan
Professor, Department of Electrical and Computer Engineering
The Johns Hopkins University
Max Born Award (Optical Society of America) 2005
Alexander von Humboldt Award (von Humboldt Foundation) 1996
Fellow OSA

Jonathan Katz
Professor of Physics
Washington University

Robert S. Knox
Professor of Physics Emeritus
University of Rochester
Member APS Council (1985-1988)
Fellow APS

Joseph A. Kunc
Professor, Physics and Astronomy
University of Southern California
Fellow APS

Robert E. LeLevier
Lawrence Livermore National Laboratory (1951-1957)
Physics Department, RAND Corp (1957-1971)
R&D Associates (1971-1983)
Eos Technologies, Inc. (1983-1993)

Robert E. Levine
Industrial and Defense Physics and Engineering (retired)
Member ACM, IEEE

John D. Lindl
James Clerk Maxwell Prize for Plasma Physics (APS) 2007
Fellow APS, AAAS

Phillip W. Mange
Associate Superintendent, Space Science Division
Scientific Consultant to the Director of Research,
Naval Research Laboratory (retired)

Jim Mitroy
Lecturer in Physics, School of Engineering and Information Technology
Charles Darwin University, Australia

Michael Monce
Professor of Physics, Astronomy, and Geophysics
Connecticut College
Member AAPT, and American Geophysical Union

Nasif Nahle
Scientific Research Director
Biology Cabinet, Mexico
Member AAAS, NYAS

Rodney W. Nichols
President and CEO, New York Academy of Sciences (1992-2001)
Vice President and Executive Vice President, The Rockefeller University (1970-1990)
Secretary of Defense Medal for Distinguished Meritorious Civilian Service (1970)
Fellow AAAS, New York Academy of Sciences

Gordon C. Oehler
Senior Fellow, Potomac Institute for Policy Studies
Working Group Chairman, Congressional Commission on the Strategic Posture of the United States.
Corporate Vice President for Corporate Development, SAIC (1998-2004)
National Intelligence Officer for Science, Technology and Proliferation (1989-1992)

Frank R. Paolini
Adjunct Professor of Physics
University of Connecticut at Stamford (retired)
Senior Member APS, Member IEEE

Thomas E. Phipps, Jr.
Physicist (retired)
Operations Evaluation Group, MIT
US Naval Ordnance Laboratory
Senior Member APS

Donald Rapp
Chief Technologist, Mechanical and Chemical Systems,
Jet Propulsion Laboratory (retired)
Professor of Physics and Environmental Engineering, University of Texas (1973-1979)
Author, "*Assessing Climate Change*" and "*Ice Ages and Interglacials*" (Springer-Verlag)
Fellow APS

John E. Rhoads
Professor of Physics
Midwestern State University (retired)
Member SPE

Harry I. Ringermacher
Sr. Research Physicist
General Electric Global Research Center
AIP "History of Physics in Industry" Participant at GE
Sir William Herschel Medal (American Academy of Thermology)
Copper Black Award (American Mensa) 2003 and 2007

Stanley Robertson
Emeritus Professor of Physics
Southwestern Oklahoma State University

Berol Robinson
Principal Scientific Officer
UNESCO (retired)
Member AAPT, AAAS, Association des Écologistes Pour le Nucléaire

Nicola Scafetta
Research Scientist, Physics Department, Duke University
Member American Geophysical Union

Thomas P. Sheahan
President/ CEO, Western Technology, Inc. (energy sciences consulting)
Member AAAS; APS Congressional Science Fellowship (1977-78)
Author, *Introduction to High Temperature Superconductivity* (Springer)

Joseph Silverman
Professor Emeritus of Nuclear Engineering,
Department of Materials Science and Engineering
University of Maryland
Fellow APS, ANS

S. Fred Singer
Professor of Environmental Sciences Emeritus
University of Virginia
First Director of the National Weather Satellite Service
Fellow APS, AAAS, American Geophysical Union

Peter Stilbs
Professor of Physical Chemistry
Royal Institute of Technology (KTH), Stockholm, Sweden
Life Member APS

Szymon Suckewer
Professor of School of Engineering & Applied Sciences
Director of Plasma Science & Technology Program
Princeton University
Fellow APS, OSA

Ronald M. Sundelin
Associate Director, DOE Thomas Jefferson National Accelerator Facility (retired)
Commonwealth Professor Emeritus of Physics, Virginia Tech
Fellow APS

Frank J. Tipler
Professor of Mathematical Physics
Tulane University
Co-author, *The Anthropic Cosmological Principle* (Oxford U. Press)

Salvatore Torquato
Professor of Chemistry and the Princeton Center for Theoretical Science,
Materials Institute and Applied & Computational Mathematics
Princeton University
2009 APS David Alder Lectureship Award in the Field of Material Physics
Fellow APS

Edward S. Troy
Principal Engineer
Aerospace Consulting
Wireless, RF, microwave, analog/DSP, and GPS circuits and systems
Member IEEE

Samuel A. Werner
Curators' Professor Emeritus
The University of Missouri
Guest Researcher, NIST
Fellow APS, AAAS

Bruce J. West
Adjunct Professor of Physics, Duke University
Fellow APS