

## List of Reviewers

### Written Public Comments on the *Strategic Plan for the U.S. Climate Change Science Program*

#### List of Reviewers

Comments Submitted 11 November 2002 through 18 January 2003

Collation dated 21 January 2003

#### List of Reviewers for Public Comment

Mark R. Abbott

Oregon State University

College of Oceanic and Atmospheric Sciences

Area(s) of Expertise: Biological oceanography, carbon cycling, remote sensing,  
information systems

Thomas P. Ackerman

Battelle Fellow

Pacific Northwest National Laboratory

Area(s) of Expertise: Climate, climate change, radiative transfer, cloud properties and  
radiative feedbacks

American Association of State Climatologists, (AASC)

Roger A. Pielke, Sr., President

Atmospheric Science Department, Colorado State University,

Area(s) of Expertise: Climate research and services

The comments of the AASC were adopted unanimously for submission to the Strategic  
Plan for the Climate Change Science Program.

Jim Anderson

Chemistry and Chemical Biology, Earth and Planetary Sciences, Engineering and  
Applied Sciences, Harvard University

Area(s) of Expertise: Atmospheric Chemistry/Physics

Richard A. Anthes

University Corporation for Atmospheric Research

Area(s) of Expertise: Modeling, atmospheric observations

Joan L. Aron, Ph.D.

Science Communication Studies

5457 Marsh Hawk Way, Columbia, Maryland, USA

Area(s) of Expertise: Climate and Health; Epidemiological Modeling; Cross-disciplinary  
Research, Applications, Education, and Training in Global Change and Public Health;  
International Collaboration

#### **OFFICE OF ATTORNEY GENERAL**

Thomas F. Reilly, Attorney General

Commonwealth of Massachusetts

## List of Reviewers

1 Office of the Attorney General  
2 Contact: Carol Iancu, Assistant Attorney General  
3  
4 Richard Blumenthal, Attorney General  
5 Contact: Kimberly Massicotte, Assistant Attorney General  
6  
7 Steven Rowe, Attorney General  
8 Office of the Attorney General of Maine  
9 Contact: Jerry Reid  
10  
11  
12 Eliot Spitzer, Attorney General  
13 State of New York Office of the Attorney General  
14 Contact: Peter Lehner, Bureau Chief,  
15  
16 Peggy A. Lautenschlager, Attorney General  
17 State of Wisconsin Department of Justice  
18 Contact: JoAnne F. Kloppenburg, Assistant Attorney General  
19  
20 Marcia Baker  
21 University of Washington  
22  
23 Dr. Wayman Baker  
24 National Centers for Environmental Prediction  
25 NOAA/NWS  
26 Area(s) of Expertise: Numerical Weather Prediction  
27  
28 Dennis Baldocchi  
29 University of California, Berkeley  
30 Area(s) of Expertise: plant-atmosphere interactions, biometeorology, ecophysiology,  
31 carbon cycle science, evaporation, trace gas exchange  
32  
33 Mark P. Baldwin  
34 Northwest Research Associates, Inc.  
35 Area(s) of Expertise: Large-scale atmospheric variability; stratosphere-troposphere  
36 interaction  
37  
38 Roger C. Bales, Professor  
39 Department of Hydrology and Water Resources  
40 University of Arizona  
41 Area(s) of Expertise: Hydrology  
42  
43 Tim Barnett  
44 USCD  
45  
46 Jill Baron

## List of Reviewers

- 1 U.S. Geological Survey
- 2 Natural Resource Ecology Laboratory, Colorado State
- 3 Area(s) of Expertise: Ecosystems
- 4
- 5 Roger Barry, Director, and Mark Parsons, Program Manager
- 6 National Snow and Ice Data Center, CIRES, University of Colorado, Boulder
- 7 Area(s) of Expertise: The Cryosphere, Data Management
- 8
- 9 Patrick J. Bartlein
- 10 Department of Geography, University of Oregon
- 11 Area(s) of Expertise: paleoclimatology
- 12
- 13 Joseph L. Bast
- 14 President
- 15 The Heartland Institute
- 16 Area(s) of Expertise: economics, state public policy
- 17
- 18 Michael Bender
- 19 Department of Geosciences
- 20 Princeton University
- 21 Area(s) of Expertise: atmospheric measurements/global carbon cycle
- 22
- 23 Jonas Berg
- 24 Humboldt State University
- 25 Area(s) of Expertise: Appropriate Technology
- 26
- 27 Joe Berry
- 28 Carnegie Institution of Washington
- 29 Department of Global Ecology
- 30 Area(s) of Expertise: Biosphere-Atmosphere interactions; plant physiology
- 31
- 32 Robert Bindshadler
- 33 NASA
- 34 Goddard Space Flight Center
- 35 Area(s) of Expertise: Glaciology
- 36
- 37 Rainer Bleck
- 38 Los Alamos National Laboratory
- 39 Area(s) of Expertise: Ocean Modeling
- 40
- 41 Dr. Janine Bloomfield
- 42 Environmental Defense
- 43 Area(s) of Expertise: Outreach, communication, stakeholder networks, ecosystem
- 44 ecology, global carbon cycle
- 45

## List of Reviewers

- 1 James Bonta, PhD  
2 USDA-ARS  
3 N. Appalachian Experimental Watershed  
4 Area(s) of Expertise: hydrology, precipitation modeling, watershed  
5 studies (erosion, water quality, hydrology)  
6  
7 Russell Bradley, William Sydeman  
8 PRBO Conservation Science, Marine Science Division  
9 Area(s) of Expertise: Marine Ecosystems  
10  
11 Anthony J. Broccoli  
12 NOAA/Geophysical Fluid Dynamics Laboratory  
13 Area(s) of Expertise: Climate Modeling  
14  
15 Stas Burgiel, Ph.D.  
16 International Policy Analyst  
17 Defenders of Wildlife  
18 Expertise: international environmental policy, biodiversity and ecosystems  
19  
20 Antonio J. Busalacchi  
21 Earth System Science Interdisciplinary Center (ESSIC)  
22 University of Maryland  
23 Area(s) of Expertise: climate variability, tropical oceanography, ocean remote sensing  
24
- 25 **STATE OF CALIFORNIA**  
26 Mary D. Nichols  
27 Agency Secretary  
28 California Resources Agency  
29  
30 Winston H. Hickox  
31 Agency Secretary  
32 California Environmental Protection Agency  
33  
34 California Energy Commission  
35 Contact: Guido Franco, Senior Engineer  
36 Area(s) of Expertise: Greenhouse Gas Inventory and Methods; Impacts of Climate  
37 Change on the State of California; Management of Research, Development, and  
38 Deployment Projects on Climate Change; Mr. Franco is the technical lead of an  
39 ongoing climate change research program at the California Energy Commission.  
40  
41 California Resources Agency  
42 Contact: Greg Greenwood, Science Advisor  
43 Area(s) of Expertise: Ecology, Environmental Assessment, Policy Planning  
44  
45 California Air Resources Board.  
46 Contact: Eileen McCauley; Manager, Atmospheric Processes Research Section

## List of Reviewers

- 1 Area(s) of Expertise: Atmospheric sciences, Global and regional aerosols,  
2 climatology, air pollution analysis.  
3  
4 California Department of Water Resources  
5 Contact: Maurice Roos, Chief Hydrologist  
6 Area(s) of Expertise: Hydrology; Hydrological trend studies; Preparation of  
7 roadmap on climate change and California's water resources
- 
- 8  
9 Christine Celata  
10 Lawrence Berkeley Laboratory  
11  
12 Robert J. Charlson  
13 University of Washington  
14 Department of Atmospheric Sciences,  
15 Area(s) of Expertise: Atmospheric Composition  
16  
17 John R. Christy  
18 University of Alabama in Huntsville  
19 Area(s) of Expertise: Tropospheric Temperature  
20  
21 Donald H. Pearlman  
22 The Climate Council  
23 Area(s) of Expertise: Scientific, technological, and economics information for use by  
24 policymakers, including service as expert reviewer of various IPCC assessment and  
25 special reports and technical papers.  
26  
27 Jim Coakley  
28 College of Oceanic and Atmospheric Sciences Ocean Admin  
29 Oregon State University  
30 NASA/Goddard Earth Science and Technology Center  
31 NASA Goddard Space Flight Center  
32 Area(s) of Expertise: Earth's radiation budget, clouds, aerosol, climate change, and  
33 remote sensing of cloud and aerosol properties from multispectral satellite imagery.  
34  
35 Dr. Stella Melugin Coakley  
36 Oregon State University  
37 Botany and Plant Pathology  
38 Expertise: plant pathology  
39  
40 Kenneth A. Colburn  
41 Northeast States for Coordinated Air Use Management (NESCAUM)  
42 Area(s) of Expertise: State air quality management  
43  
44 **Community Climate Systems Model Advisory Board (CAB) Community Climate**  
45 **Systems Model Advisory Board (CAB)**

## List of Reviewers

1       **Members:** Dr. Francis P. Bretherton, University of Wisconsin-Madison; Prof.  
2       Michael Ghil, UCLA; Dr. Isaac M. Held, NOAA/Geophysical Fluid Dynamics  
3       Laboratory; Dr. Tony Hollingsworth, European Centre for Medium-Range Weather  
4       Forecasts, UK; Dr. John B. Drake, Oak Ridge National Laboratory; Prof. Ed  
5       Sarachik, Chair, University of Washington;  
6       Dr. David Schimel, NCAR; Dr. Max J. Suarez , NASA/Goddard Space Flight  
7       Center; Dr. Eric T. Sundquist, U.S. Geological Survey; Prof. Alan J. Thorpe,  
8       University of Reading, UK; Dr. Michele M. Rienecker  
9       NASA/Goddard Space Flight Center; Prof. Thomas Crowley, Duke University; Dr.  
10      Francis Zwiers , Canadian Centre for Climate Modelling and Analysis; Prof.  
11      Stephen W. Pacala , Princeton University

12  
13      **Ex-Officio Members:** Dr. Richard Anthes, UCAR; Dr. Timothy Killeen, NCAR;  
14      Dr. Maurice L. Blackmon, NCAR; Dr. Jay Fein, National Science Foundation; Dr.  
15      Stephen J. Reid, National Science Foundation;  
16      Dr. David Bader DOE Climate Change Prediction Program; Dr. Jeffrey Kiehl,  
17      NCAR; Dr. Philip Merilees, NCAR

18  
19      Contact person: E.S. Sarachik, Chair, CAB  
20      University of Washington

21  
22      Todd Phillip Cook  
23      Lakeview Terrace Sanitarium  
24      (comment by letter)

25  
26      Christine Corwin  
27      Bluewater Network  
28      Area(s) of Expertise: Global Warming Impacts on Public Lands and Waters

29  
30      Paul Craig  
31      Sierra Club  
32      Area(s) of Expertise: environmental policy

33  
34      Ted Cress  
35      Pacific Northwest National Laboratory  
36      Area(s) of Expertise: Clouds and Radiation in Climate Models

37  
38      William B. Curry  
39      Wood Hole Oceanographic Institution  
40      Department of Geology and Geophysics  
41      Woods Hole Oceanographic Institution  
42      Area(s) of Expertise: Paleoceanography, Oceanography, Climate

43  
44      Robert M. Cushman  
45      Carbon Dioxide Information Analysis Center  
46      Environmental Sciences Division

## List of Reviewers

- 1 Oak Ridge National Laboratory  
2 U.S. Department of Energy  
3  
4 H. Daily  
5 Independent Researcher  
6 Area(s) of Expertise: Scientific data collection  
7  
8 Virginia Dale  
9 Oak Ridge National Laboratory  
10 Area(s) of Expertise: Ecological modeling, land-use change  
11  
12 Dr. Anthony B. Davis  
13 Los Alamos National Laboratory,  
14 Nonproliferation and International Security Division  
15 Area(s) of Expertise: cloud remote sensing, cloud effects in surface remote sensing,  
16 nonlinear variability analysis, stochastic simulation, geophysical applications  
17  
18 Robert T. Deck  
19 Professor of Physics  
20 University of Toledo  
21  
22 Dept. of Agriculture  
23 Steven R. Shafer  
24 U.S. Dept. of Agriculture, Agricultural Research Service (USDA-ARS)  
25 Area(s) of Expertise: Agriculture; ecosystems  
26  
27 **COMMENTS FROM DOE NATIONAL LABORATORIES**  
28 Response Coordinated by:  
29 Thomas J. Wilbanks  
30 Oak Ridge National Laboratory  
31 Area(s) of Expertise: Various among the national laboratory contributors to the  
32 comments  
33  
34 Response Coordinated by:  
35 Stephen E. Schwartz  
36 Senior Scientist  
37 Atmospheric Sciences Division, Brookhaven National Laboratory  
38 <http://www.ecd.bnl.gov/steve/schwartz.html>  
39 Atmospheric chemistry; atmospheric aerosols; atmospheric radiation; aerosol-climate  
40 interactions; radiative forcing of climate change  
41  
42 Cynthia Atherton  
43 Lawrence Livermore National Laboratory  
44 Atmospheric Science Division  
45  
46 Elaine G. Chapman

## List of Reviewers

1 Senior Development Engineer  
2 Pacific Northwest National Laboratory  
3 [http://www.pnl.gov/atmos\\_sciences/index.html#newsletter](http://www.pnl.gov/atmos_sciences/index.html#newsletter)  
4 Atmospheric composition  
5  
6 Paul Doskey  
7 Argonne National Laboratory  
8  
9 Manvendra Dubey, PhD  
10 Geochemistry Team Leader  
11 Los Alamos National Laboratory  
12 Atmospheric Composition and Chemistry, Carbon and  
13 Biogeochemical Cycles, Ecosystem Science, Geochemistry  
14  
15 Richard C. Easter  
16 Senior Research Scientist  
17 Pacific Northwest National Laboratory  
18 [http://www.pnl.gov/atmos\\_sciences/index.html#newsletter](http://www.pnl.gov/atmos_sciences/index.html#newsletter)  
19 Atmospheric composition  
20  
21 David Erickson  
22 Oak Ridge National Laboratory  
23 Climate modeling, biogeochemical cycles, atmospheric and marine chemistry  
24  
25 Jeffrey S. Gaffney, Ph.D.  
26 Argonne National Laboratory  
27 Atmospheric Composition, Carbon Cycles  
28  
29 John Taylor, PhD  
30 Head, Argonne Regional Climate Center  
31 Argonne National Laboratory  
32 <http://www.mcs.anl.gov/~jtaylor>  
33 Mathematics and Computer Science  
34  
35 Rahul A. Zaveri  
36 Research Scientist  
37 Pacific Northwest National Laboratory  
38 [http://www.pnl.gov/atmos\\_sciences/index.html#newsletter](http://www.pnl.gov/atmos_sciences/index.html#newsletter)  
39 Atmospheric composition  
40  
41 Department of Transportation  
42 Attn. Linda Lawson  
43 Area(s) of Expertise: The comments were prepared by the DOT's Office for  
44 Transportation Policy Development and include input from all of DOT's modes.  
45  
46 Ms. Hilda Diaz-Soltero, Director



## List of Reviewers

- 1 USDA Forest Service, PSW Research Station  
2 Area(s) of Expertise: Natural resource science leadership  
3  
4 Paul V. Doskey  
5 Environmental Research Division  
6 Argonne National Laboratory  
7 Area(s) of Expertise: Atmospheric Composition  
8  
9 John Drake  
10 Oak Ridge National Laboratory, Climate Dynamics Group.  
11 Area(s) of Expertise: Atmospheric Dynamics and Parallel Computing  
12  
13 Manvendra Dubey, PhD, Geochemistry Team Leader  
14 Los Alamos National Laboratory  
15 Earth & Environmental Sciences Division  
16 Expertise: Atmospheric Composition and Chemistry, Carbon and Biogeochemical  
17 Cycles, Ecosystem Science, Geochemistry  
18  
19 C. Mark Eakin, Ph.D.  
20 Chief of NOAA Paleoclimatology Program and  
21 Director of the World Data Center for Paleoclimatology  
22 NOAA/National Climatic Data Center  
23 <http://www.ngdc.noaa.gov/paleo/paleo.html>  
24  
25 Earth Climate Research Institute  
26 Bill Orr, President  
27 Denver, CO 80210  
28  
29 The Earth Institute at Columbia University  
30 Jeffrey D. Sachs, Director,  
31 Quetelet Professor of Social Sciences, Columbia University  
32 Professor of Health Policy and Management, Columbia University  
33 Research Associate, National Bureau of Economic Research  
34 Special Advisor to United Nations Secretary General Kofi Annan  
35 Earth Institute at Columbia University  
36 The Earth Institute at Columbia University  
37  
38 Kristie L. Ebi, Ph.D., MPH  
39 EPRI  
40 Area(s) of Expertise: Potential Health Impacts of and Adaptation to Climate Variability  
41 and Change  
42  
43 Edison Electric Institute (EEI)  
44 William Fang/Eric Holdsworth  
45 Area(s) of Expertise: Association of U.S. shareholder-owned electric utilities and  
46 industry affiliates worldwide.

## List of Reviewers

- 1
- 2 Scott Elliott
- 3 Earth and Environmental Sciences, Los Alamos National Laboratory
- 4 Expertise: Biogeochemistry
- 5
- 6 David B. Enfield
- 7 NOAA/AOML/PhOD
- 8
- 9 Environment and Energy Study Institute (EESI)
- 10 Carol Werner, JR Drabick, Penny Hanson,
- 11 Area(s) of Expertise: Energy and Climate Policy
- 12
- 13 David Erickson
- 14 Oak Ridge National Laboratory
- 15 Area(s) of Expertise: Climate modeling, biogeochemical cycles, atmospheric and marine
- 16 chemistry
- 17
- 18 Mike Farrell
- 19 Oak Ridge National Laboratory
- 20 Area(s) of Expertise: Information systems, carbon cycle, impact assessment.
- 21
- 22 Richard A. Feely
- 23 Pacific Marine Environmental Laboratory
- 24 National Oceanic and Atmospheric Administration
- 25 Area(s) of Expertise: Ocean Carbon Cycling
- 26
- 27 Howard Feldman
- 28 American Petroleum Institute
- 29 Area(s) of Expertise: Atmospheric Science
- 30
- 31 Benjamin Felzer, Ph.D.
- 32 The Ecosystems Center, Marine Biological Laboratory
- 33 Area(s) of Expertise: climate scenarios, climate modeling, paleoclimatology,
- 34 biogeochemical modeling
- 35
- 36 Ann Fisher
- 37 Penn State University
- 38
- 39 Ned Ford
- 40 Sierra Club
- 41 Area(s) of Expertise: Environmental Activist
- 42
- 43 Josh Foster
- 44 Senior Program Development Specialist
- 45 Climate and Societal Interactions Division (CSI)

## List of Reviewers

- 1 Office of Global Programs (OGP)  
2 U.S. National Oceanic and Atmospheric Administration (NOAA)  
3 Area(s) of Expertise: Decision Support Resources  
4  
5 Melissa Free  
6 Air Resources Lab., NOAA  
7 Area(s) of Expertise: Radiosonde temperature data, effects of volcanoes on  
8 climate  
9  
10 Julie Friddell  
11 US Army Corps of Engineers, Engineering Research and  
12 Development Center, Cold Regions Research and Engineering Laboratory  
13 Area(s) of Expertise: Climate Variability and Rapid Climate Change  
14  
15 Jurgen Garbrecht  
16 USDA, Agricultural Research Service  
17 Area(s) of Expertise: Impact of climate variability/change on hydrology and land  
18 productivity  
19  
20 W. Lawrence Gates  
21 Lawrence Livermore National Laboratory  
22 Area(s) of Expertise: climate modeling  
23  
24 Lydia Dümenil Gates  
25 Lawrence Berkeley National Laboratory  
26 Area(s) of Expertise: Global Climate Modeling  
27  
28 Patricia Glick, M.S.  
29 National Wildlife Federation  
30 Area(s) of Expertise: Climate change impacts on wildlife  
31 Background: Patricia Glick has more than ten years experience working on  
32 global climate change issues. She is currently the Coordinator for the Climate Change  
33 and Wildlife Program at the National Wildlife Federation, where she is responsible for  
34 educating the organization's members, policy makers, and the general public about the  
35 impact of global climate change on wildlife and habitats. Among other things, she has  
36 worked with some of the nation's top scientists and scientific bodies to encourage  
37 research on climate change and its effects on wildlife, and to assist relevant decision-  
38 makers in developing appropriate and effective solutions. Ms. Glick received an M.S.  
39 degree in economic development from the University of North Carolina at Chapel Hill in  
40 1990 and a B.A. from Sweet Briar College in 1986.  
41  
42 Patrick Gonzalez  
43 The Nature Conservancy  
44 Area(s) of Expertise: forest ecology  
45

## List of Reviewers

- 1 Kenneth Green, D.Env.
- 2 Fraser Institute
- 3 Area(s) of Expertise: Analysis of science-based public policy
- 4
- 5 Gerald L. Geernaert
- 6 Los Alamos National Laboratory
- 7 Area(s) of Expertise: air-sea interactions, climate, policy
- 8
- 9 Dr. George Wolff
- 10 General Motors Corporation
- 11 Public Policy Center
- 12 Area(s) of Expertise: Air Quality and Atmospheric Science
- 13
- 14 Steven Ghan
- 15 Pacific Northwest National Laboratory
- 16 Expertise: cloud and aerosol parameterization
- 17
- 18 Anand Gnanadesikan
- 19 NOAA, Geophysical Fluid Dynamics Lab
- 20 Area(s) of Expertise: Ocean dynamics, carbon cycling
- 21
- 22 Steve Hankin
- 23 Chairman, Data Management and Communications Steering Committee, Ocean.US US
- 24 Integrated Ocean Observing System effort
- 25 Area(s) of Expertise: Data Management
- 26
- 27 Howard P. Hanson
- 28 Los Alamos National Laboratory
- 29 Areas: Climate modeling & change; role of oceans; connections to policy
- 30
- 31 Paul J. Hanson, Ph.D.
- 32 Oak Ridge National Laboratory (ORNL)
- 33
- 34 Lowry A. Harper
- 35 Agricultural Research Service, U.S. Department of Agriculture
- 36 Southern Piedmont Conservation Unit
- 37 Area(s) of Expertise: Environmental Physics, Agricultural Climatology, Air Quality in
- 38 Relation to Agricultural Systems, Agronomy, Agricultural Engineering
- 39
- 40 Jerry L. Hatfield
- 41 USDA-Agricultural Research Service
- 42 National Soil Tilth Laboratory
- 43 Area(s) of Expertise: Environmental Physics, Crop Physiology, Agricultural Remote
- 44 Sensing
- 45

## List of Reviewers

- 1 John Haynes  
2 Office of Earth Science/Applications Division/NASA Headquarters  
3 Code YO  
4 Area(s) of Expertise: Mesoscale Meteorology  
5  
6 BertJan Heij  
7 Program manager,  
8 Focal Point Climate Change (FPCC)  
9  
10 Blair Henry, JD  
11 Research Professor, Earth System Science Institute  
12 University of North Dakota  
13 Area(s) of Expertise: advising elected policymakers  
14  
15 Dr. Elisabeth (Beth) A. Holland  
16 National Center for Atmospheric Research  
17 Area(s) of Expertise: Biogeoscience, Biogeochemistry, Atmospheric Composition.  
18 Atmospheric Chemistry  
19  
20 Christopher C. Horner  
21 Competitive Enterprise Institute (CEI)  
22 Area(s) of Expertise: Federal Data Quality Act (FDQA), agency adherence to scientific  
23 norms.  
24  
25 Andy Horvitz  
26 NOAA/National Weather Service  
27 Area(s) of Expertise: Applied Climatology,  
28  
29 Douglas Hoyt  
30 Retired; formerly employed by Raytheon, NCAR, NOAA, and others  
31 Area(s) of Expertise: Solar physics, empirical and theoretical studies of climate change  
32 since 1968  
33  
34 Thomas G. Huntington  
35 U.S. Geological Survey  
36 Area(s) of Expertise: Hydrology. Soil Science  
37  
38 **ILLINOIS STATE WATER SURVEY**  
39 Derek Winstanley  
40 Area(s) of Expertise: Climate studies and program management.  
41  
42 Michael A. Palecki and James R. Angel  
43 Illinois State Water Survey  
44 Area(s) of Expertise: Applied Climatology  
45

## List of Reviewers

- 1 Xin-Zhong Liang  
2 Illinois State Water Survey  
3 Area(s) of Expertise: Climate Modeling  
4
- 5 Allen Williams, Ho Chun Huang, and Michael Caughey  
6 Illinois State Water Survey  
7 Area(s) of Expertise: Air quality modeling and observations  
8
- 9 Stanley A. Changnon  
10 Illinois State Water Survey  
11 Area(s) of Expertise: Applied Climatology  
12
- 13 James R. Angel  
14 Illinois State Water Survey  
15 Area(s) of Expertise: Applied Climatology  
16
- 17 David A. R. Kristovich  
18 Illinois State Water Survey  
19 Area(s) of Expertise: Mesoscale meteorology  
20
- 21 Steven E. Hollinger  
22 Illinois State Water Survey  
23 Area(s) of Expertise: Carbon Cycle  
24
- 25 Steven D. Hilberg and Michael A. Palecki  
26 Illinois State Water Survey  
27 Area(s) of Expertise: Applied Climatology  
28
- 29 International Research Institute for Climate Prediction (IRI)  
30 Stephen E. Zebiak, Interim Director General of the International Research Institute for  
31 Climate Prediction (IRI), and the IRI Staff  
32 Area(s) of Expertise: Climate systems, climate prediction, prediction verification,  
33 climate modeling, data library and archival, climate and environmental monitoring,  
34 environmental and societal impacts, climate and sector specific decision tools,  
35 institutional and policy roles in improved decision strategies, capacity building, outreach,  
36 and education.  
37
- 38 Jack E. Janisch  
39 (formerly) Department of Forest Science, Oregon State University  
40 Environmental Assessment Program  
41 Washington Department of Ecology  
42 Area(s) of Expertise: Terrestrial Carbon Sequestration  
43
- 44 David A. Jay, Associate Professor  
45 Department of Environmental Science and Engineering  
46 OGI School of Science and Engineering, Oregon Health and Science University

## List of Reviewers

- 1 Area(s) of Expertise: physical oceanography and ecology of estuarine and coastal  
2 systems  
3  
4 Steven Jayne  
5 Woods Hole Oceanographic Institution  
6 Area(s) of Expertise: Ocean Circulation  
7  
8 Gensuo J. Jia  
9 University of Virginia  
10 Environmental Sciences, University of Virginia, Charlottesville, VA 22904-4123  
11 Area(s) of Expertise: Vegetation and climate dynamics  
12  
13 J. Scott Jiusto  
14 Research Associate  
15 George Perkins Marsh Institute  
16 Clark University  
17 Area(s) of Expertise: energy policy and carbon accounting  
18  
19 Philip W. Jones  
20 Los Alamos National Laboratory  
21 Area(s) of Expertise: ocean, climate modeling  
22  
23 Dr. Russell O. Jones  
24 American Petroleum Institute  
25 Area(s) of Expertise: Economics  
26  
27 Sonja B. Jones  
28 Oak Ridge National Laboratory  
29 Carbon Dioxide Information Analysis Center, Oak Ridge  
30 Area(s) of Expertise: CDIAC User and Information Services  
31  
32 Seiji Kato  
33 Hampton University  
34 Mail Stop 420,  
35 NASA Langley Research Center  
36 Area(s) of Expertise: Radiative Effect of Clouds and Aerosols, Climate Quality  
37 Satellite Remote Sensing:  
38  
39 Ralph Keeling  
40 Scripps Institution of Oceanography  
41 University of California, San Diego  
42 Area(s) of Expertise: atmospheric measurements/global carbon cycle  
43  
44 Willett Kempton  
45 Center for Energy and Environmental Policy (Senior Policy Scientist)

## List of Reviewers

- 1 College of Marine Studies (Associate Professor)
- 2 Univ of Delaware
- 3
- 4 James L. Kinter III, Executive Director, COLA
- 5 J. Shukla, President, IGES
- 6 Center for Ocean-Land-Atmosphere Studies (COLA)
- 7 Institute of Global Environment and Society (IGES)
- 8 Area(s) of Expertise: Climate Predictability, Climate Modeling
- 9
- 10 S.M. Kirschner
- 11 Union of Concerned Scientists
- 12
- 13 Herbert W. Kroehl
- 14 NOAA-NESDIS National Geophysical Data Center
- 15 Area(s) of Expertise: Solar-Terrestrial Physics
- 16
- 17 Jeff R. Kuhn
- 18 Institute for Astronomy, University of Hawaii
- 19 Expertise: Stellar physics, solar variability
- 20
- 21 George Kukla
- 22 Lamont Doherty Earth Observatory of Columbia University
- 23 Area(s) of Expertise: Paleoclimates, Orbital Variations, Current Climate
- 24
- 25 Rattan Lal
- 26 The Ohio State University
- 27 Area(s) of Expertise: Soil carbon sequestration
- 28
- 29 Peter J. Lamb
- 30 Cooperative Institute for Mesoscale Meteorological Studies
- 31 The University of Oklahoma
- 32 Area(s) of Expertise: Climate
- 33
- 34 Daniel Lashof, Ph.D.
- 35 Natural Resources Defense Council (NRDC)
- 36 Area(s) of Expertise: Carbon Cycle, Mitigation Technology
- 37
- 38 Edward Laws
- 39 University of Hawaii
- 40 Department of Oceanography
- 41
- 42 L. Ruby Leung
- 43 Pacific Northwest National Laboratory
- 44
- 45 Orest Lewinter
- 46 Area(s) of Expertise: Atmospheric Sciences



## List of Reviewers

1  
2 Brent M. Lofgren  
3 NOAA/Great Lakes Environmental Research Laboratory  
4 Area(s) of Expertise: Regional climate modeling, air-surface interaction  
5  
6 Alan A. Lucier, Ph.D.  
7 National Council for Air and Stream Improvement, Inc.  
8 Area(s) of Expertise: Forest Carbon Cycle and Forest Response to Global Change  
9 Factors  
10  
11 Dr. Michael MacCracken  
12 Lawrence Livermore National Laboratory (LLNL)-retired  
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32 Area(s) of Expertise: Public Understanding of and Local Response to Climate Change  
33 (The comments below are the opinion of the author. They are not intended to reflect the  
34 opinion of the New York State Dept. of Environmental Conservation or the Hudson River  
35 Estuary Program.)  
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37 Todd Marse  
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39 Area(s) of Expertise: Coastal Ecosystems  
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42 William O'Keefe  
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44 Area(s) of Expertise: Climate policy  
45  
46 Leonard S. Bernstein

## List of Reviewers

- 1 L. S. Bernstein & Associates, L.L.C.  
2 Area(s) of Expertise: Climate policy  
3  
4 Charles R. McClain  
5 NASA Goddard Space Flight Center  
6 Area(s) of Expertise: Ocean carbon cycle  
7  
8 John McCoy  
9  
10 Mack McFarland  
11 DuPont  
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13 Jim McGrath  
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15 Edward L. McIntosh  
16 A very ordinary citizen  
17 Area(s) of Expertise: Just a reasonably educated person who's concerned about this topic  
18  
19 Andrea McMakin  
20 Pacific Northwest National Laboratory  
21 Area(s) of Expertise: risk communication, science communication  
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23 Richard T. McNider, Executive Director  
24 National Space Science and Technology Center  
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46 Dr. Constance I. Millar

## List of Reviewers

- 1 USDA Forest Service, PSW Research Station  
2 Area(s) of Expertise: paleoecology, paleoclimatology; plant responses to paleoclimates  
3 (Tertiary to 20<sup>th</sup> C); conifer emphasis, dendrochronology, western United States, esp.  
4 Sierra Nevada and western Great Basin; high-elevation, alpine ecology; integrated  
5 bioregional assessments and scientific contributions to assessments, resource  
6 management, and policy-making.  
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8 Editor: Mark Miller<sup>2</sup>; Contributors: Fairley Barnes<sup>4</sup>, Rainer Bleck<sup>4</sup>, Marcia Branstetter<sup>5</sup>,  
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10 Springer<sup>4</sup>, Margaret Torn<sup>3</sup>, Mark Wigmosta<sup>6</sup>, Bernard Zak<sup>7</sup>  
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42 and change, stratospheric water vapor  
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45 **BOARD**  
46 Paul Schopf, chair

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1 Eric Chassignet, Jean-Claude Andre, Doug Rotman, Ian Foster, Ed Sarachik,  
2 Steve Zebiak, Gavin Schmidt  
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5 expertise in developing, building, maintaining and using global climate models  
6 and data systems. The ESMF Advisory Board is an external body providing  
7 advice to the ESMF Executive Board on a wide range of scientific and technical  
8 topics.  
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21 Leland Tarnay  
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35 Strategic Plan are my own, and independent from my employment (NWS\_NCRFC).  
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37 New Zealand  
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- 1 Hratch G. Semerjian
- 2 Director
- 3 Chemical Science & Technology Laboratory
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- 6 NOAA Climate Monitoring and Diagnostics Laboratory (CMDL)
- 7 James Butler
- 8 Ellsworth Dutton
- 9 Dave Hofmann
- 10 John Ogren
- 11 Russ Schnell
- 12 Pieter Tans
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- 19 Richard Norby
- 20 Oak Ridge National Laboratory
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- 34 change scientist
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- 43 Myriam Sarachik, President
- 44 American Physical Society
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- 46 Michael J. Singer, President

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46 Raymond T. Pierrehumbert

## List of Reviewers

- 1 Dept. of the Geophysical Sciences,  
2 The University of Chicago  
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4 vapor, atmospheric dynamics.  
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13 meteorological monitoring and calibration. Presently working with the DOE ARM  
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45 2) Dr. Martyn Clark, University of Colorado, for the Western Water Assessment  
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- 1           3) Dr. James Jones, University of Florida, for the Southeastern Climate  
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5           5) Dr. Jonathan T. Overpeck, University of Arizona, for the Climate Assessment  
6           of the Southwest (Comment Collator)  
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16          John Reilly  
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- 1 Area(s) of Expertise: species response to climate change, government affairs  
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14 renewable energy and climate change policy. (MALD and Ph.D. in international energy  
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42 Cort Anastasio  
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5 change  
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44 Area(s) of Expertise: Climate, Climate modeling  
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11 James G. Titus  
12 U.S. Environmental Protection Agency, Office of Atmospheric Programs. The opinions  
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17 Peter Thompson  
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20 John Townshend  
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39 James Hurrell, NCAR  
40 William Kessler, NOAA Pacific Marine Environmental Laboratory  
41 Jerry Meehl, , NCAR  
42 Dean Roemmich, Scripps Institution of Oceanography  
43 Paul Schopf, COLA/George Mason University  
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24 C. Mark Eakin, Ph.D.  
25 Chief of NOAA Paleoclimatology Program and  
26 Director of the World Data Center for Paleoclimatology  
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36 Expertise: Chemical engineering, energy resources, anthropogenic emissions,  
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38 AAAS Diplomacy Fellow at U.S. AID’s Office of Energy, with assignments at the  
39 Department of State on FCCC and Copenhagen Amendments, World Bank on energy  
40 loans, Pilot GEF on incremental CO<sub>2</sub>-mitigation financing for energy projects, and  
41 CEES/MARS  
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43 Thomas W Wagner  
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7 mitigation measures

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9 Warren M. Washington  
10 NCAR

### 11 **USGCRP GLOBAL WATER CYCLE SCIENCE STEERING GROUP**

12 The comments provided by the USGCRP Global Water Cycle Science Steering Group  
13 are based on a meeting that was held in Washington, DC, January 6-7, 2003, which was  
14 mostly dedicated to a discussion of the most important research that would contribute to  
15 the water cycle in general, and to comment on Chapter 7 of the draft “Strategic Plan for  
16 the Climate Change Science Program” in particular. The procedure by which these  
17 comments were made includes a debate at our meeting, followed by individual comments  
18 made by the members of the committee, and a synthesis prepared by the committee chair  
19 and reviewed and approved by the committee members. Accordingly, these comments  
20 are separated into two groups, one including general comments and a second group  
21 including specific comments related to the written document in hands. The SSG  
22 committee members are:

23  
24 Roni Avissar (Chair of SSG) – Duke University  
25 Paul Dirmeyer – Center for Ocean, Land and Atmosphere  
26 Chris Duffy – Pennsylvania State University  
27 James Hack – National Center for Atmospheric Research  
28 Helen Ingram – University of California  
29 Dennis Lettenmaier – University of Washington )  
30 Diane McNight – University of Colorado  
31 Mark Miller – DOE Brookhaven National Laboratory  
32 Christa Peters-Lidard – NASA Goddard Space Flight  
33 Maurice Roos – California Department of Water Resources  
34 Brian Soden – NOAA Geophysical Fluid Dynamics Laboratory

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- 1 Joseph M. Welch  
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6 coastal physical oceanographic and marine meteorological parameters  
7 **Note:** I attended the December 3-5, U.S. Climate Change Science Program, Planning  
8 Workshop for Scientists and Stakeholders. *The following comments are mine and*  
9 *do not necessarily reflect official NOAA, NOS, and/or CO-OPS positions.*  
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18 Judy Martz  
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21 Toni McCammon  
22 Office Manager/Executive Secretary  
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25 John Wiener  
26 Individual Commentator  
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28 Bruce Wielicki  
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30 Area(s) of Expertise: Climate Quality Satellite Remote Sensing: Clouds and Radiation  
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32 Tom Wilbanks  
33 Oak Ridge National Laboratory  
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35 Harold Wilhite  
36 Research Fellow at the University of Oslo's Centre for Development and the  
37 Environment, and former General Manager of the European Council for an Energy  
38 Efficient Economy (ECEEE)  
39 Un. Of Oslo, Centre for Development and the Environment  
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42 consumption and social change  
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44 Richard R. Wilk  
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46 Area(s) of Expertise: Consumption, ecological anthropology

## List of Reviewers

- 1
- 2 Warren Wiscombe
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- 6 Area(s) of Expertise: Atmospheric Radiation
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- 13 Jennifer Morgan
- 14 World Wildlife Fund
- 15 Area(s) of Expertise: Climate Policy
- 16
- 17 Jennifer Biringer
- 18 World Wildlife Fund
- 19 Area(s) of Expertise: Forest Ecology
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- 21 Annie Wyndham