
GFDL Awards and Honors – Research, Development, and/or Application 1998-2012 (1d)

International

BBVA Foundation Frontiers of Knowledge Award - Isaac M. Held (2011) – for his fundamental contribution to understanding the structure of atmospheric circulation systems and the role of water vapor in climate change

Australian Commonwealth Scientific and Industrial Research Organization (CSIRO) Distinguished Visiting Scientist Fellowship Award Program – Stephen Griffies (2010): This award “recognizes his many achievements in the field of global ocean and climate modeling.” Ten such grants are awarded each year to scientists that are leading researchers in their field.

Wei Lun Distinguished Visiting Professor, the Chinese University of Hong Kong – Ngar-Cheung Lau (2010): This is the most prestigious visiting academic appointment at the University.

Bert Bolin Lecturer at Stockholm University – V. Ramaswamy (2009): Dissecting the Roles of Aerosols and Greenhouse Gases in Climate Change: Scientific Understanding and Policy Implications

Kyoto Earth Hall of Fame – Syukuro Manabe, Emeritus (2009): One of the first three 2009 inductees to the Hall of Fame. This award recognizes his seminal contributions in the study of Global Warming.

2007 Nobel Peace Prize: Intergovernmental Panel On Climate Change (IPCC) – 37 current and former GFDL scientists contributed significantly to the IPCC process and consequently share in the 2007 Nobel Peace Prize that was awarded jointly to Albert Arnold Gore, Jr. and the IPCC, “for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change.”

K. R. Ramanathan Distinguished Professor, Physical Research Laboratory, India – V. Ramaswamy (2004): Awarded for “work in atmospheric sciences and, in particular, for international reputation in studies of atmospheric radiation processes.”

Hong Kong Observatory’s 120th Anniversary Certificate of Distinguished Meteorologist Award – Ngar-Cheung Lau (2003) – El Nino and Asian Climate

Norbert Gerbier-Mumm International Award, World Meteorological Organization

V. Ramaswamy (2003): For the research paper: "Stratospheric Temperature Trends: Observations and Model Simulations" by V. Ramaswamy, *et al.*, published in *Reviews of Geophysics*, 39, 71-122, 2001

V. Ramaswamy, R. J. Stouffer, and M.D. Schwarzkopf, (1998): For collaboration on the research paper: "A Search for Human Influences on the Thermal Structure of the Atmosphere, with B. D. Santer, *et al.* published in *Nature*, 382(6586), 39-46

White House

Presidential Rank Award for Distinguished Senior Professionals

Isaac Held (2010) – "Isaac's achievements, hard work and dedication distinguish him an extraordinary example of professionalism and achievement in government"

Presidential Rank Award for Meritorious Senior Professionals

V. Ramaswamy (2005) – "Cited for his unusual scientific creativity and expertise in the understanding and quantification of the factors that force global climate variations and change and his research into the effects that natural causes and human activity may have on the climate"

Isaac Held (2004) – "For his fundamental contribution to understanding modeling the Earth's weather and climate"

Presidential Early Career Award for Scientists and Engineers (PECASE)

Charles Stock (2009) – "For enhancing the marine ecosystem dynamics included in GFDL's earth system model (ESM), and applying ESM and other GFDL models to the study of impacts of climate and variability on marine resources"

Yi Ming (2008) – "For an outstanding record of innovative investigations on aerosols, their interaction with clouds, and their effect on climate and human health, using an end-to-end approach encompassing both climate and modeling observation"

Arlene Fiore (2006) – "Contributed significantly to the science of atmospheric chemistry and to our understanding of ozone pollution and its regulation"

Gabriel Vecchi (2004) – "For fundamental contributions concerning the roles of subseasonal variability on the onset and termination of El Nino, and on Indian Monsoon rainfall"

Professional Society

American Geophysical Union Reviewer Recognition

Larry W. Horowitz (2008) – Editor’s Citation

Thomas R. Knutson (2008) – Editor’s Citation

American Meteorological Society Reviewer Recognition

Isaac M. Held (2012) – Journal of the Atmospheric Sciences Editor’s Award, “For high-level and insightful reviews for a number of editors.”

Takeshi Doi (2012) – Journal of Climate Editor’s Award, “For providing a thoughtful and decisive review of a difficult paper on short notice.”

Andrew Wittenberg (2009) – Journal of Climate Editor’s Award, “For his dependably scholarly, constructive, and thorough reviews.”

Thomas R. Knutson (2008) – Journal of Climate Editor’s Award, “For his thorough, thoughtful and insightful reviews that have greatly assisted the Journal of Climate editors in some of their most difficult decisions.”

American Geophysical Union

James B. Macelwane Medal – Arlene Fiore (2011): “For significant contributions to the geophysical sciences by an outstanding young scientist.”

James R. Holton Junior Scientist Award – Arlene Fiore (2005)

American Meteorological Society

Henry M. Stommel Research Award – Kirk Bryan, Emeritus (2009): “For pioneering contributions to ocean circulation modeling, including model development and applications to the study of ocean heat transport and the ocean’s role in climate”

Carl Gustaf Rossby Award – Isaac Held (2008): “For fundamental insights into the dynamics of the Earth’s climate through studies of idealized dynamical models and comprehensive climate simulations”

Henry G. Houghton Award – Brian J. Soden (2002): “For creative and thoughtful use of observations from multiple satellite sensors to better characterize the climate system’s radiative and hydrological balances”

Bernhard Haurwitz Memorial Lecturer – Isaac Held (1999): “For significant contributions to the understanding of waves in the atmosphere”

Banner I. Miller Award – Morris Bender, Rebecca Ross, Robert Tuleya, and Yoshi Kurihara (1998): “For the best contribution to the science of hurricane and tropical weather forecasting published during the years 1992–1994”

University, Industry, and External Governmental

William T. Pecora Award, NASA & Department of the Interior – Paul Ginoux (2006)

Aerocenter Journal Citation Award, NASA Goddard Space Flight Center – Paul Ginoux (2005)

Technical Honor’s Program Award, Raytheon – Jeffrey Flick (2005)

Thompson Lecturer, National Center for Atmospheric Research – Isaac Held (2005)

Integrative Graduate Education and Research Traineeship, Distinguished Lecturer, Columbia University – Isaac Held (2004)

Alumni Award, University of Michigan – Leo J. Donner (2003)

Group Achievement Award for Aqua Mission Team, NASA – Leo J. Donner (2003)

Meritorious Service Award, Department of the Interior – P. C. D. Milly (2002)

DAO Special Recognition Award, NASA Goddard Space Flight Center – Shian-Jiann Lin (2002)

Honorary Doctor of Humane Letters, Chadron State College – Jerry Mahlman (2000) – The College’s third-ever: “In recognition of his exemplary service to mankind, Chadron State College is pleased to confer upon Dr. Jerry Mahlman the honorary degree, Doctor of Humane Letters. Dr. Mahlman’s scientific career and research has fostered understanding of the effects of human behavior on the ozone layer and worldwide climate change.”

Climate Protection Award, Environmental Protection Agency – Jerry Mahlman (2000): “Dr. Jerry Mahlman’s research career has been directed at modeling, diagnosing, and understanding the behavior of the atmosphere and its implications for climate and chemical

change. Over the past decade, he has occupied a central role in the direct interpretation and communication of human-caused climate change to policy-makers and communities. Under his leadership over the last 15 years, the Geophysical Fluid Dynamics Laboratory has become widely recognized as one of the world's finest climate modeling centers, and a world leader in providing unbiased scientific information on the climate change problem."

Scientific Research Award, NASA Goddard Space Flight Center – Shian-Jiann Lin (2000)

Sigma Xi Distinguished Lecturer, American Meteorological Society – Jerry Mahlman (1999-2000): "The Sigma Xi Distinguished Lectureships Program brings distinguished scientists to receptive audiences of scholars and students of various disciplines."

Philip Thompson Distinguished Lecturer, National Center for Atmospheric Research – Jerry Mahlman (1999): "For scientific achievements, expertise in computer modeling of the atmosphere and stratospheric circulations, experience in policy issues, and in leading one of the top research laboratories in its field"

Department of Commerce, National Oceanic and Atmospheric Administration, and Office of Oceanic and Atmospheric Research

Department of Commerce Gold Medal Awards

Issac Held, Morris Bender, Stephen Garner, Thomas Knutson, Shian-Jiann Lin, Joe Sirutis, Gabriel Vecchi *et al.* (2011)- "The group is recognized for sustained high-quality research, scientific assessment and leadership resulting in an improved understanding of the impact of anthropogenic climate change on past and future hurricane activity."

V. Ramaswamy, John Lanzante, *et al.* (2007) – "For coordinating and drafting a Climate Change Science Program report on Temperature Trends in the Lower Atmosphere"

Morris Bender, Timothy Marchok, *et al.* (2006) – "For development of critical improvements to the Geophysical Fluid Dynamics Laboratory Hurricane Predictions System, and its implementation into operational hurricane forecasts"

V. Ramaswamy and Ronald J. Stouffer (2002) – "For world-renowned scientific contributions to the recently concluded state-of-the-art assessment of the science of global change"

Isaac Held (1999) – "For world leadership in studies of the dynamics of climate and climate change; his work has directly contributed to the Department's leadership role in research on, and prediction of, human-caused climate change"

Department of Commerce Silver Medal Awards

Hiram Levy, Dan Schwarzkopf, Larry Horowitz, V. Ramaswamy, and Kirsten Findell (2009) – “For showing that projected changes in human emissions of short-lived gases and particles, which are controlled locally and regionally throughout the world to improve air quality, may significantly influence climate in the 21st century”

Thomas Delworth, Paul Ginoux, Larry Horowitz, Ronald Stouffer, Keith Dixon, Stuart Freidenreich, Michael Spelman, Richard Hemler, M. Daniel Schwarzkopf, and V. Ramaswamy (2005) – “For delivering state-of-the-art model simulations of past, present, and future climate and for enabling open access to the data sets. Results from a recent international workshop support the conclusion that the Geophysical Fluid Dynamics Laboratory climate model is among the best in the world”

Department of Commerce Bronze Medal Awards

Aneet K. Bewtra , Jeffery D. Flick , John P. Sheldon, Bernie H. Siebers Jr. , Edward Weiss III , Stephen F. Mayle , and John T. King (2010)- For personal and professional excellence in quickly and effectively restoring mission capability after an electrical disaster at GFDL.

Anand Gnanadesikan (2009) – “For remarkable contributions and original concepts in the design and leverage of the Sant Ocean Hall, the national exhibition on the global ocean”

Keith Dixon and Ronald J. Stouffer (2006) – “For development of the NOAA Operational Model Archive and Distribution System, the first operational U.S. National climate and weather model archive”

John Lanzante (2006) – “For developing research-quality radiosonde atmospheric temperature datasets for reliably monitoring climate variations and change”

Morris Bender and Timothy Marchok (2005) – “For remarkable improvements to operational hurricane track forecasts through improvements to the Geophysical Fluid Dynamics Laboratory hurricane model and transition of these to NCEP/NWS and DOD.”

NOAA Administrator’s Awards

Hiram Levy, II, V. Ramaswamy, Isaac Held, M. Daniel Schwarzkopf, Larry Horowitz, Ronald Stouffer, Thomas Delworth, Thomas Knutson, *et al.* (2008) – “For outstanding dedication to developing U.S. CCSP Synthesis and Assessment Products integrating climate research for decision support.”

Aneet Bewtra, John Sheldon, Brian Gross, *et al.* (2005) – “For extraordinary efforts, dedication, and teamwork to develop and issue integrated requirements for a NOAA high performance computer system that realistically demonstrates our One-NOAA vision.”

Oceanic and Atmospheric Research Awards

NOAA Green Steward – Whit Anderson (2009) – “For taking actions to reduce OAR’s carbon footprint. The actions we take on land ultimately affect the oceans we strive to manage and protect.”

Daniel L. Albritton Outstanding Science Communicator – Keith Dixon (2008) – “An expert climate modeler, has a rare talent and passion for explaining the complexities of climate science in a style that is clear, compelling, and even entertaining. He has educated and influenced stakeholders and policymakers by translating complex information about climate and making it accessible to non-scientists.”

Team Employees of the Year – FMS Modeling Team: Jeffrey Anderson, Brian Gross, Bruce Wyman, Matthew Harrison, Isaac Held, Richard Hemler, Stephen Klein, Paul Kushner, Peter Phillipps, Joseph Sirutis and Michael Winton (2002) – “For outstanding contributions to the improvement and accessibility of two key atmospheric models.”

Employee of the Year

Rusty Benson (2010) – “For outstanding contributions to the promotion of excellence in Administrative/Technical Support at NOAA/GFDL”

Jeffrey D. Flick (2009) – “For outstanding leadership and dedication in ensuring the security of NOAA’s IT systems, and the design and development if NOAA’s next generation high-speed networks”

Stephen Mayle (2006) – “For exceptional leadership by example and strong commitment to personal and professional excellence during all the mission-critical projects undertaken on behalf of OAR”

Wendy Marshall (2005) – “For personal and professional excellence in planning and executing budget duties within OAR and NOAA and for providing outstanding customer service”

John Sheldon (2005) – “For outstanding leadership in developing strategic IT policies and activities to advance NOAA’s environmental data mission and High Performance Computing vision”

Keith Dixon (2004) – “For his superb leadership, personal dedication to excellence, and significant contributions to climate change simulations for the 2007 Intergovernmental Panel on Climate Change”

Stephen M. Griffies (1998) –“For outstanding contributions to studies of ocean climate predictability and ocean climate modeling”

NOAA Research “Outstanding Scientific Paper” Award

Hiram Levy, Dan Schwarzkopf, Larry Horowitz, V. Ramaswamy and Kirsten Findell (2009): Strong Sensitivity of Late 21st century to Projected Changes in Short-lived Air Pollutants, *Journal of Geophysical Research*, 2008.

V. Ramaswamy and Ronald Stouffer (2008) for co-authorship on the work: Solomon, S., D. Qin, M. Manning, R.B. Alley, T. Berntsen, N.L. Bindoff, Z. Chen, A. Chidthaisong, J.M. Gregory, G.C. Hegerl, M. Heimann, B. Hewitson, B.J. Hoskins, F. Joos, J. Jouzel, V. Kattsov, U. Lohmann, T. Matsuno, M. Molina, N. Nicholls, J. Overpeck, G. Raga, V. Ramaswamy, J. Ren, M. Rusticucci, R. Somerville, T.F. Stocker, R. Stouffer, P. Whetton, R.A. Wood and D. Wratt, 2007: Technical Summary. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. *Cambridge University Press*, Cambridge, United Kingdom and New York, NY, USA.

Shaoqing Zhang, Matthew Harrison, Anthony Rosati, and Andrew Wittenberg (2008): System Design and Evaluation of Coupled Ensemble Data Assimilation for Global Oceanic Climate Studies, *Monthly Weather Review*, 135, 3541-3564, 2007.

Gabriel Vecchi, Brian Soden, Andrew Wittenberg, Isaac Held, Ants Leetmaa, and Matthew Harrison (2007): Weakening of Tropical Pacific Atmospheric Circulation Due To Anthropogenic Forcing, *Nature*, 441, 73-76, 2006.

Thomas Delworth (2003) for co-authorship on the work: Delworth, Thomas, and M.E. Mann, Observed and Simulated Multidecadal Variability in the Northern Hemisphere, *Climate Dynamics*, 16(9), 661-676, 2000.

Isaac Held and Brian Soden (2002): Water Vapor Feedback and Global Warming, *Annual Review of Energy and the Environment*, 25, 441-475, 2000.

V. Ramaswamy (2002) – For scientific contributions as a Chapter Lead Author of the international state of understanding assessment of the ozone layer “Scientific Assessment of Ozone Depletion: 1998” that was produced under the United Nations Montreal Protocol on Substances that Deplete the Ozone Layer and that serves NOAA’s mission to provide scientific

information to national and international decision makers on the topic of ozone-layer rehabilitation.

Richard Wetherald and Brian Soden (2002) for co-authorship on the work: Soden, Brian, R. Wetherald, G. Stenchikov, and A. Robock, 2002: Global Cooling after the Eruption of Mount Pinatubo: A Test of Climate Feedback by Water Vapor, *Science*, 296(5568), 727-730.

Morris Bender (2001) for co-authorship of the work: Bender, Morris, and I. Ginis, 2000: Real-case Simulations of Hurricane-ocean Interaction Using a High-resolution Coupled Model: Effects on Hurricane Intensity, *Monthly Weather Review*, 128(4), 917-946.

Stephen M. Griffies (2001) for co-authorship of the work: Griffies, Stephen, C. Böning, F.O. Bryan, E.P. Chassignet, R. Gerdes, H. Hasumi, A.C. Hirst, A.M. Treguier, D. Webb, 2000: Developments in Ocean Climate Modeling, *Ocean Modeling*, 2, 123-192.

Thomas Knutson and R. Tuleya (2000): Increased Hurricane Intensities with CO₂-induced Warming As Simulated Using the GFDL Hurricane Prediction System, *Climate Dynamics*, 15, 503-519, 1999.

V. Ramaswamy, and Brian Soden (2000) for co-authorship of the work: Haywood, J.M., V. Ramaswamy, and Brian Soden, Tropospheric Aerosol Climate Forcing in Clear Sky Satellite Observations Over the Oceans, *Science*, 283(5406), 1299-1303, 1999.

Ronald Stouffer (2000) for co-authorship of the work: Vinnikov, K.Y., R. Stouffer, A. Robock, J.E. Walsh, C.L. Parkinson, D.J. Cavaleiri, J.F.B. Mitchell, D. Garrett, and V.F. Zakharov, Global Warming and Northern Hemisphere Sea Ice Extent, *Science*, 286, 1934-1936, 1999.

Stephen M. Griffies and Ronald Pacanowski (1999) for co-authorship of the work: Griffies, Stephen, A. Gnanadesikan, R. Pacanowski, V. Larichev, J. Dukowicz, and R. Smith, Isoneutral Diffusion in a Z-Coordinate Ocean Model, *Journal of Physical Oceanography*, 28, 805-830, 1998.