GFDL Awards and Honors – Research, Development, and/or Application 2006-2015

International

Visiting Integrated Climate System Analysis and Prediction (CliSAP) Scientist Award – Sarah B. Kapnick (2014), University of Hamburg

Gilbert Walker Distinguished Chair Professorship at IIT Delhi India – V. Ramaswamy (2013): For "his outstanding research record, including his work to elucidate the role of aerosols and greenhouse gases in climate change in the Indian region, which involves changes in the Walker circulation"

Norbert Gerbier-Mumm International Award, World Meteorological Organization

Massimo Bollasina, Yi Ming, and V. Ramaswamy (2013): "For an original scientific paper on the influence of meteorology in a particular field of the physical, natural or human sciences, or on the influence of one of these sciences on meteorology" on the paper "Anthropogenic Aerosols and the Weakening of the South Asian Summer Monsoon" published in *Science*, 334 (6055), 2011

Noble Lecturer in the Physics Department, University of Toronto – Isaac Held (2012): "General Circulation of the Atmosphere"

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"

World Climate Research Program Award for Outstanding Scientific Oral Presentation – Massimo Bollasina, Rym Msadek, and Illisa Ocko (2011): World Climate Research Program Open Sciences Conference 2011

RAICES Prize, Ministry of Science and Technology of Argentina – Isidoro Orlanski, Emeritus (2011): "for exceptional scientific contributions and their efforts in promoting science development in Argentina"

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"

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 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"

Atmospheric Science Librarians International 2007 Choice in the Scientific and Technical Category – V. Ramaswamy, Ronald Stouffer, Held, *et al*. (2007): "For co-authorship in the 'high impact comprehensive publication' – Intergovernmental Panel on Climate Change Working Group I report 'Climate Change 2007: The Physical Science Basis' "

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 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"

State Department

Bureau of Oceans and International Environmental and Scientific Affairs Certificate of Appreciation – John Dunne (2015): "for his contributions to the World Ocean Assessment Review Process."

Professional Society

American Geophysical Union – Sarah Kapnick (2015), Cryosphere Section Early Career Award "for her outstanding research which focuses on the mechanisms controlling extreme storms and mountain snowpack."

Journal of Geophysical Research Atmosphere – Paul Ginoux (2015): 2014 Editor Citation for Excellence in Referring

Hydrologic Sciences Award – P.C.D. Milly (2013)

Atmospheric Sciences Ascent Award – Paul Ginoux (2013), for "sustained pioneering work on aerosols"

James B. Macelwane Award – Arlene Fiore (2011), "For significant contributions to the geophysical sciences by an outstanding young scientist"

William Bowie Medal – Syukoro Manabe (2010), "This award recognizes his outstanding contributions to fundamental geophysics and for unselfish cooperation in research."

James R. Holton Junior Scientist Award – Arlene Fiore (2005), Massimo Bollasina (2013)

Reviewer Recognition

Rong Zhang (2012) – Editor's Citation

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

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

American Meteorological Society

Robert E. Horton Lecturer Award for Hydrology – Paul C.D. Milly (2015): "for contributions to understanding the earth's hydrological cycle, climate related land-atmosphere process, and implications of climate trends and variability on hydrology and water resources**."**

Henry G. Houghton Award – Yi Ming (2015): "for major advances in the understanding and modeling of the role of atmospheric aerosols in the radiative forcing of regional and global climate."

American Meteorological Society Annual Meeting – (2nd Place) – Geeta Persad (2015): "Program Committee of the climate variability and Change Conference for her talk, entitled "The regional climate response to absorption-Friven Solar Dimming over East Asia".

2015 Walter Orr Robert Lecturer in Interdisciplinary Sciences – V. Ramaswamy (2015): This lecture was established in recognition of significant contributions to the understanding of atmospheric process.

Bernard Haurwitz Lecturer – Gabriel Lau (Lecture to be given at Annual Meeting in 2015)

Clarence Leroy Meisinger Award – Gabriel Vecchi (2013): "For outstanding contributions to the understanding of tropical climate and variability and change"

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"

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 a 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

2014 Outstanding Student Paper Award – Persad Geeta (2015)

2013 Atmospheric Science Section's Ascent Award – Paul Ginouz (2015): This award aims to reward exceptional mid-career scientists in the fields of the atmospheric sciences and climate; specifically for sustained pioneering work on aerosols.

Reviewer Recognition

Gabriel A. Vecchi (2008) – Editor's Citation for Excellence in Refereeing for Geophysical Research Letters

European Geosciences Union

Fridtjof Nansen Medal – Stephen Griffies (2014): For oceanographic research

University, Industry, and External Governmental

ComputerWorld Premier 100 IT Leaders for 2015 – Ron Bewtra (2015): "These 100 top tech professionals ensure IT is delivering maximum value by building strong, productive partnerships with their business cohorts."

Thomson Reuters Highly Cited Researchers 2015 – Thomas L. Delworth, Paul A. Ginoux, Isaac M. Held, Larry W. Horowitz, Jorge L. Sarmiento, Ronald J. Stouffer, Gabriel A. Vecchi, and Andrew T. Wittenberg (2015): "The 2015 Highly Cited Researchers represents some of world's most influential scientific minds. About three thousand researchers earned this distinction by writing the greatest number of reports during 2003-2013 officially designated by Essential Science Indicators as Highly Cited Papers — ranking among the top 1% most cited for their subject field and year of publication, earning them the mark of exceptional impact."

Franklin Institute – Benjamin Franklin Medal in Earth and Environmental Science – Syukuro Manabe (2015): "for his pioneering research on the sensitivity of Earth's climate to increasing carbon dioxide in the atmosphere and his development of global climate models, which, have led to fundamental advances in the understanding of climate variability and to methods for predicting future climate change."

Air & Waste Management Association Certificate of Recognition– Vaishali Naik (2015): "for her efforts in preparing the 2015 critical review, air quality and climate connetions for the Air & Waste Management Association's 108th Annual Conference and Exhibition."

King Abdulla University of Science and Technology Distinguished Lecturer – V. Ramaswamy (2015): "has been invited to participate in the Physical Science and Engineering Division Distinguished Lectureship Series. This series seeks to bring leading global thinkers in chemistry and chemical engineering, mechanical engineering, material science and engineering, and earth sciences.

National Air and Space Administration – V. Ramaswamy (2015): "For his paper 'Achieving Climate Change Absolute Accuracy Orbit' which was selected as the first place winner."

University of Illinois at Urbana Ogura Lecture Series – V. Ramaswamy (2015): The Ogura lecture series was started in 1988 in honor of our Department founder, Professor Yoshi Ogura. Each year, we invite an internationally recognized scientist in our field to deliver a seminar on campus that focuses on topic of interest to a range of disciplines.

Toastmasters International – Marian B. Westley (2015): Competent Communicator Award.

Houghton Lecturer at the Massachusetts Institute of Technology – Gabriel A. Vecchi (2014)

Foreign Policy's Leading Global Thinkers of 2013 – Tom Knutson, Andrew Wittenberg, Fanrong Zeng, and Rong Zhang (2013): "For explaining the complex issues surrounding the extreme events in 2012, and speaks to the broad reach of the work undertaken by all the contributers"

Noble Lecturer, Physics Department at the University of Toronto – Isaac Held (2012)

Alumni Fellowship at Penn State University – Ronald J. Stouffer (2012)

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

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

Department of Commerce Gold Medal Awards

Gabriel Vecchi, Rich Gudgel, William Stern, *et al.* (2015) - The team is recognized for developing the North American Multi-Model Ensemble (NMME), a research to operations transition project coordinated between OAR and NWS, with contributions from DOE, NASA, and NSF. The NMME system adheres to NOAA's operational launch schedules, providing the Nation with timely, credible seasonal forecasts that enhance decision making to protect life and property. The NMME has enabled pioneering research on seasonal predictability, stimulated model improvements at operational and research centers, and provided critical information for risk management.

Whit Anderson, Thomas Delworth, Rich Gudgel, William Stern, Rusty Benson, Keith Dixon, Gabriel Vecchi, Fanrong Zeng, Shaoqing Zhang, Andrew Wittenberg (2014) – Scientific / Engineering Achievement ,"The group is honored for developing the Forecast Oriented Global Ocean-Atmosphere-Land-Sea Ice model, the Nation's first high-resolution coupled atmosphere-ocean climate prediction system for seasonal-to-decadal timescales, which vastly improves our ability to represent the processes and phenomena that are crucial to predicting seasonal-to-decadal regional hydrological impacts (such as snow, droughts, and floods) and extremes (such as heat waves and hurricane statistics). This system is now an integral element of the North American Multi-Model Ensemble for Seasonal Prediction."

Leo Donner, Paul Ginoux, Jean-Christophe Golaz, Richard Hemler, Larry Horowitz, Yi Ming, Marcel Schwarzkopf, Michael Winton, Andrew Wittenberg, Bruce Wyman, *et al*. (2012) –"The group is recognized for original research and world scientific leadership in the modeling of atmospheric greenhouse gases and aerosols, and their interactions with climate"

Morris Bender, Stephen Garner, Isaac Held, 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"

John Lanzante, V. Ramaswamy, *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"

Department of Commerce Silver Medal Awards

Gabriel Vecchi, Rich Gudgel, William Stern (2015) – "for implementing the North American Multi-Model Ensemble to put timely and useful seasonal forecast information into the hands of decision-makers."

John Dunne, Stephen Griffies, Robert Hallberg, Matthew Harrison, Jasmin John, John Krasting, Bonnie Samuels, Lori Sentman, Ronald Stouffer, and Andrew Wittenberg (2013) – "For the development and application of NOAA's first comprehensive Earth System Models that couple the carbon cycle and climate to project changes"

Kirsten Findell , Larry Horowitz, Hiram Levy, Dan Schwarzkopf, and V. Ramaswamy (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"

Department of Commerce Bronze Medal Awards

Douglas Aikin, Rusty A. Benson, Aneet K. Bewtra, James A. Deuringer, Jeffrey D. Flick, Ronald N. Henne, Frank M. Indiviglio, John T. King, Amy Renee Langenhorst, Lawrence J. Lewis, Garrett W. Power, Catherine T. Raphael, John P. Sheldon, Bernard H. Siebers, Thomas E. Taylor, Jeffrey Varanyak, Edward A. Weiss III, Robert K. White and William T. Yeager (2014) – "For selfless application of administrative and technical support throughout Hurricane Sandy to protect mission capability, life, and property at NOAA's Geophysical Fluid Dynamics Laboratory"

Rusty A. Benson (2014) – "For dedication in acquiring supercomputing services to sustain production of the Nation's operational numerical weather and climate forecast systems"

Aneet K. Bewtra, Jeffrey D. Flick, Frank M. Indiviglio and Bernard H. Siebers, Jr. (2014) – "For excellence in transforming NOAA's R&D High Performance Computing System into an enterprise-wide environment, providing new capabilities that enable scientific advancement"

Aneet K. Bewtra, Jeffery D. Flick, John T. King, Stephen F. Mayle, John P. Sheldon, Bernard H. Siebers Jr. and Edward Weiss III (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 and atmospheric temperature datasets for reliably monitoring climate variations and change"

Other Department of Commerce Awards

Energy and Water Management Award – Aneet K. Bewtra, Scott P. Burnham, Jeffrey D. Flick, Brendon Johnson, Stephen F. Mayle, John McGreggor, Amy L. McLiverty, Bernard H. Siebers, and Robert Taylor (2014): "For redesigning GFDL's UPS system, resulting in substantial energy and costs savings"

General Counsel Award – Marian Westley (2013): "For exceptional performance and significant contributions to the Office of the General Counsel"

NOAA Administrator's Awards

Gabriel Vecchi (2014): "For scientific expertise, leadership and outstanding contributions to the Fifth Assessment report of the Intergovernmental Panel on Climate Change."

Shian-Jiann Lin (2013): "For dramatic improvements in atmospheric models leading to major scientific advances, especially in the simulation of tropical storm activity"

Stephen Griffies (2012): "For scientific vision, leadership, and development of the Modular Ocean Model (MOM) for climate modeling, research, and predictions" Thomas L. Delworth, Isaac Held, Larry Horowitz, Thomas Knutson, Hiram Levy, II, V. Ramaswamy, M. Daniel Schwarzkopf, Ronald J. Stouffer, *et al*. (2008) – "For outstanding dedication to developing U.S. Climate Change Science Program (CCSP) Synthesis and Assessment Products integrating climate research for decision support"

Oceanic and Atmospheric Research Awards

Daniel L. Albritton Outstanding Science Communicator

Gabriel Vecchi (2015): "For his focus on scientific research, building predictive understanding of climate and its impacts, such as hurricanes on timescales of weeks to centuries. Gabriel also has consistently demonstrated an ability to bring OAR science to audiences across a broad range of sectors, from educators to local citizens, children to senior business executives, and policy makers to media outlets."

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"

Top Research Accomplishments of 2012 – Charles A. Stock (2012): "For climate impacts studies on endangered leatherback turtles"

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"

Employee of the Year

Bernard H. Siebers, Jr. (2012) – "For contributions to the development of the cutting-edge technology used to manage GFDL's massive data archive"

Rusty A. 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 F. 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"

NOAA Research "Outstanding Scientific Paper" Award

Andrew Wittenberg (2011): Are Historical Records Sufficient to Constrain ENSO Simulations?, *Journal of Climate*, 2009.

Kirsten Findell, Larry Horowitz, Hiram Levy, Dan Schwarzkopf, and V. Ramaswamy (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.

NOAA Distinguished Career Award

Anthony J. Rosati (2014): "For outstanding efforts over many years to develop state-of-the-art climate models and assimilation systems to advance seasonal to centennial climate prediction in National Oceanic and Atmospheric Administration"

Hiram Levy (2013): "For pioneering the understanding of tropospheric chemistry through discovery of fundamental mechanisms and global atmospheric chemistry modeling"